



SEQUENCE LISTING

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<120> LIPOPROTEINS AS NUCLEIC ACID VECTORS

<130> ARAG:003USD1

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<151> 1998-05-14

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<210> 1

<211> 4536

<212> PRT

<213> Homo sapiens

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Thr Arg Phe Lys His Leu Arg Lys Tyr Thr Tyr Asn Tyr Glu Ala Glu
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Ser Ser Ser Gly Val Pro Gly Thr Ala Asp Ser Arg Ser Ala Thr Arg
35 40 45

Ile Asn Cys Lys Val Glu Leu Glu Val Pro Gln Leu Cys Ser Phe Ile
50 55 60

Leu Lys Thr Ser Gln Cys Thr Leu Lys Glu Val Tyr Gly Phe Asn Pro
65 70 75 80

Glu Gly Lys Ala Leu Leu Lys Lys Thr Lys Asn Ser Glu Glu Phe Ala
85 90 95

Ala Ala Met Ser Arg Tyr Glu Leu Lys Leu Ala Ile Pro Glu Gly Lys
100 105 110

Gln Val Phe Leu Tyr Pro Glu Lys Asp Glu Pro Thr Tyr Ile Leu Asn
115 120 125

Ile Lys Arg Gly Ile Ile Ser Ala Leu Leu Val Pro Pro Glu Thr Glu
130 135 140

Glu Ala Lys Gln Val Leu Phe Leu Asp Thr Val Tyr Gly Asn Cys Ser

145		150		155		160
Thr His Phe Thr Val Lys Thr Arg Lys Gly Asn Val Ala Thr Glu Ile						
		165		170		175
Ser Thr Glu Arg Asp Leu Gly Gln Cys Asp Arg Phe Lys Pro Ile Arg						
		180		185		190
Thr Gly Ile Ser Pro Leu Ala Leu Ile Lys Gly Met Thr Arg Pro Leu						
		195		200		205
Ser Thr Leu Ile Ser Ser Ser Gln Ser Cys Gln Tyr Thr Leu Asp Ala						
		210		215		220
Lys Arg Lys His Val Ala Glu Ala Ile Cys Lys Glu Gln His Leu Phe						
		225		230		235
Leu Pro Phe Ser Tyr Asn Asn Lys Tyr Gly Met Val Ala Gln Val Thr						
		245		250		255
Gln Thr Leu Lys Leu Glu Asp Thr Pro Lys Ile Asn Ser Arg Phe Phe						
		260		265		270
Gly Glu Gly Thr Lys Lys Met Gly Leu Ala Phe Glu Ser Thr Lys Ser						
		275		280		285
Thr Ser Pro Pro Lys Gln Ala Glu Ala Val Leu Lys Thr Leu Gln Glu						
		290		295		300
Leu Lys Lys Leu Thr Ile Ser Glu Gln Asn Ile Gln Arg Ala Asn Leu						
		305		310		315
Phe Asn Lys Leu Val Thr Glu Leu Arg Gly Leu Ser Asp Glu Ala Val						
		325		330		335
Thr Ser Leu Leu Pro Gln Leu Ile Glu Val Ser Ser Pro Ile Thr Leu						
		340		345		350
Gln Ala Leu Val Gln Cys Gly Gln Pro Gln Cys Ser Thr His Ile Leu						
		355		360		365
Gln Trp Leu Lys Arg Val His Ala Asn Pro Leu Leu Ile Asp Val Val						
		370		375		380
Thr Tyr Leu Val Ala Leu Ile Pro Glu Pro Ser Ala Gln Gln Leu Arg						
		385		390		395
Glu Ile Phe Asn Met Ala Arg Asp Gln Arg Ser Arg Ala Thr Leu Tyr						
		405		410		415
Ala Leu Ser His Ala Val Asn Asn Tyr His Lys Thr Asn Pro Thr Gly						
		420		425		430
Thr Gln Glu Leu Leu Asp Ile Ala Asn Tyr Leu Met Glu Gln Ile Gln						
		435		440		445
Asp Asp Cys Thr Gly Asp Glu Asp Tyr Thr Tyr Leu Ile Leu Arg Val						

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465					470					475					480
Ser	Ser	Ile	Leu	Lys	Cys	Val	Gln	Ser	Thr	Lys	Pro	Ser	Leu	Met	Ile
				485					490					495	
Gln	Lys	Ala	Ala	Ile	Gln	Ala	Leu	Arg	Lys	Met	Glu	Pro	Lys	Asp	Lys
			500					505					510		
Asp	Gln	Glu	Val	Leu	Leu	Gln	Thr	Phe	Leu	Asp	Asp	Ala	Ser	Pro	Gly
		515					520					525			
Asp	Lys	Arg	Leu	Ala	Ala	Tyr	Leu	Met	Leu	Met	Arg	Ser	Pro	Ser	Gln
	530					535					540				
Ala	Asp	Ile	Asn	Lys	Ile	Val	Gln	Ile	Leu	Pro	Trp	Glu	Gln	Asn	Glu
545					550					555					560
Gln	Val	Lys	Asn	Phe	Val	Ala	Ser	His	Ile	Ala	Asn	Ile	Leu	Asn	Ser
				565					570					575	
Glu	Glu	Leu	Asp	Ile	Gln	Asp	Leu	Lys	Lys	Leu	Val	Lys	Glu	Ala	Leu
			580					585					590		
Lys	Glu	Ser	Gln	Leu	Pro	Thr	Val	Met	Asp	Phe	Arg	Lys	Phe	Ser	Arg
		595					600						605		
Asn	Tyr	Gln	Leu	Tyr	Lys	Ser	Val	Ser	Leu	Pro	Ser	Leu	Asp	Pro	Ala
	610					615					620				
Ser	Ala	Lys	Ile	Glu	Gly	Asn	Leu	Ile	Phe	Asp	Pro	Asn	Asn	Tyr	Leu
625					630					635					640
Pro	Lys	Glu	Ser	Met	Leu	Lys	Thr	Thr	Leu	Thr	Ala	Phe	Gly	Phe	Ala
				645					650					655	
Ser	Ala	Asp	Leu	Ile	Glu	Ile	Gly	Leu	Glu	Gly	Lys	Gly	Phe	Glu	Pro
			660					665					670		
Thr	Leu	Glu	Ala	Leu	Phe	Gly	Lys	Gln	Gly	Phe	Phe	Pro	Asp	Ser	Val
		675					680					685			
Asn	Lys	Ala	Leu	Tyr	Trp	Val	Asn	Gly	Gln	Val	Pro	Asp	Gly	Val	Ser
	690					695					700				
Lys	Val	Leu	Val	Asp	His	Phe	Gly	Tyr	Thr	Lys	Asp	Asp	Lys	His	Glu
705					710					715					720
Gln	Asp	Met	Val	Asn	Gly	Ile	Met	Leu	Ser	Val	Glu	Lys	Leu	Ile	Lys
				725					730					735	
Asp	Leu	Lys	Ser	Lys	Glu	Val	Pro	Glu	Ala	Arg	Ala	Tyr	Leu	Arg	Ile
			740					745					750		
Leu	Gly	Glu	Glu	Leu	Gly	Phe	Ala	Ser	Leu	His	Asp	Leu	Gln	Leu	Leu

755						760					765						
Gly	Lys	Leu	Leu	Leu	Met	Gly	Ala	Arg	Thr	Leu	Gln	Gly	Ile	Pro	Gln		
770						775					780						
Met	Ile	Gly	Glu	Val	Ile	Arg	Lys	Gly	Ser	Lys	Asn	Asp	Phe	Phe	Leu		
785						790					795					800	
His	Tyr	Ile	Phe	Met	Glu	Asn	Ala	Phe	Glu	Leu	Pro	Thr	Gly	Ala	Gly		
805						810					815						
Leu	Gln	Leu	Gln	Ile	Ser	Ser	Ser	Gly	Val	Ile	Ala	Pro	Gly	Ala	Lys		
820						825					830						
Ala	Gly	Val	Lys	Leu	Glu	Val	Ala	Asn	Met	Gln	Ala	Glu	Leu	Val	Ala		
835						840					845						
Lys	Pro	Ser	Val	Ser	Val	Glu	Phe	Val	Thr	Asn	Met	Gly	Ile	Ile	Ile		
850						855					860						
Pro	Asp	Phe	Ala	Arg	Ser	Gly	Val	Gln	Met	Asn	Thr	Asn	Phe	Phe	His		
865						870					875					880	
Glu	Ser	Gly	Leu	Glu	Ala	His	Val	Ala	Leu	Lys	Ala	Gly	Lys	Leu	Lys		
885						890					895						
Phe	Ile	Ile	Pro	Ser	Pro	Lys	Arg	Pro	Val	Lys	Leu	Leu	Ser	Gly	Gly		
900						905					910						
Asn	Thr	Leu	His	Leu	Val	Ser	Thr	Thr	Lys	Thr	Glu	Val	Ile	Pro	Pro		
915						920					925						
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Gly	Leu	Asn	Tyr	Cys	Thr	Ser	Gly	Ala	Tyr	Ser	Asn	Ala	Ser	Ser	Thr		
945						950					955					960	
Asp	Ser	Ala	Ser	Tyr	Tyr	Pro	Leu	Thr	Gly	Asp	Thr	Arg	Leu	Glu	Leu		
965						970					975						
Glu	Leu	Arg	Pro	Thr	Gly	Glu	Ile	Glu	Gln	Tyr	Ser	Val	Ser	Ala	Thr		
980						985					990						
Tyr	Glu	Leu	Gln	Arg	Glu	Asp	Arg	Ala	Leu	Val	Asp	Thr	Leu	Lys	Phe		
995						1000					1005						
Val	Thr	Gln	Ala	Glu	Gly	Ala	Lys	Gln	Thr	Glu	Ala	Thr	Met	Thr	Phe		
1010						1015					1020						
Lys	Tyr	Asn	Arg	Gln	Ser	Met	Thr	Leu	Ser	Ser	Glu	Val	Gln	Ile	Pro		
1025						1030					1035					1040	
Asp	Phe	Asp	Val	Asp	Leu	Gly	Thr	Ile	Leu	Arg	Val	Asn	Asp	Glu	Ser		
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Thr	Glu	Gly	Lys	Thr	Ser	Tyr	Arg	Leu	Thr	Leu	Asp	Ile	Gln	Asn	Lys		

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Lys Ile Thr Glu Val Ala Leu Met Gly His Leu Ser Cys Asp Thr Lys 1075	1080	1085
Glu Glu Arg Lys Ile Lys Gly Val Ile Ser Ile Pro Arg Leu Gln Ala 1090	1095	1100
Glu Ala Arg Ser Glu Ile Leu Ala His Trp Ser Pro Ala Lys Leu Leu 1105	1110	1115 1120
Leu Gln Met Asp Ser Ser Ala Thr Ala Tyr Gly Ser Thr Val Ser Lys 1125	1130	1135
Arg Val Ala Trp His Tyr Asp Glu Glu Lys Ile Glu Phe Glu Trp Asn 1140	1145	1150
Thr Gly Thr Asn Val Asp Thr Lys Lys Met Thr Ser Asn Phe Pro Val 1155	1160	1165
Asp Leu Ser Asp Tyr Pro Lys Ser Leu His Met Tyr Ala Asn Arg Leu 1170	1175	1180
Leu Asp His Arg Val Pro Glu Thr Asp Met Thr Phe Arg His Val Gly 1185	1190	1195 1200
Ser Lys Leu Ile Val Ala Met Ser Ser Trp Leu Gln Lys Ala Ser Gly 1205	1210	1215
Ser Leu Pro Tyr Thr Gln Thr Leu Gln Asp His Leu Asn Ser Leu Lys 1220	1225	1230
Glu Phe Asn Leu Gln Asn Met Gly Leu Pro Asp Phe His Ile Pro Glu 1235	1240	1245
Asn Leu Phe Leu Lys Ser Asp Gly Arg Val Lys Tyr Thr Leu Asn Lys 1250	1255	1260
Asn Ser Leu Lys Ile Glu Ile Pro Leu Pro Phe Gly Gly Lys Ser Ser 1265	1270	1275 1280
Arg Asp Leu Lys Met Leu Glu Thr Val Arg Thr Pro Ala Leu His Phe 1285	1290	1295
Lys Ser Val Gly Phe His Leu Pro Ser Arg Glu Phe Gln Val Pro Thr 1300	1305	1310
Phe Thr Ile Pro Lys Leu Tyr Gln Leu Gln Val Pro Leu Leu Gly Val 1315	1320	1325
Leu Asp Leu Ser Thr Asn Val Tyr Ser Asn Leu Tyr Asn Trp Ser Ala 1330	1335	1340
Ser Tyr Ser Gly Gly Asn Thr Ser Thr Asp His Phe Ser Leu Arg Ala 1345	1350	1355 1360
Arg Tyr His Met Lys Ala Asp Ser Val Val Asp Leu Leu Ser Tyr Asn		

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Lys	Phe	Ser	His	Val	Glu	Lys	Leu	Gly	Asn	Asn	Pro	Val	Ser	Lys	Gly	
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Leu	Leu	Ile	Phe	Asp	Ala	Ser	Ser	Ser	Trp	Gly	Pro	Gln	Met	Ser	Ala	
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Ser	Val	His	Leu	Asp	Ser	Lys	Lys	Lys	Gln	His	Leu	Phe	Val	Lys	Glu	
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Val	Lys	Ile	Asp	Gly	Gln	Phe	Arg	Val	Ser	Ser	Phe	Tyr	Ala	Lys	Gly	
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Thr	Tyr	Gly	Leu	Ser	Cys	Gln	Arg	Asp	Pro	Asn	Thr	Gly	Arg	Leu	Asn	
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Gln	Ile	Thr	Gly	Arg	Tyr	Glu	Asp	Gly	Thr	Leu	Ser	Leu	Thr	Ser	Thr	
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Ser	Asp	Leu	Gln	Ser	Gly	Ile	Ile	Lys	Asn	Thr	Ala	Ser	Leu	Lys	Tyr	
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Glu	Asn	Tyr	Glu	Leu	Thr	Leu	Lys	Ser	Asp	Thr	Asn	Gly	Lys	Tyr	Lys	
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Asn	Phe	Ala	Thr	Ser	Asn	Lys	Met	Asp	Met	Thr	Phe	Ser	Lys	Gln	Asn	
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Ala	Leu	Leu	Arg	Ser	Glu	Tyr	Gln	Ala	Asp	Tyr	Glu	Ser	Leu	Arg	Phe	
1570					1575					1580						
Phe	Ser	Leu	Leu	Ser	Gly	Ser	Leu	Asn	Ser	His	Gly	Leu	Glu	Leu	Asn	
1585					1590					1595					1600	
Ala	Asp	Ile	Leu	Gly	Thr	Asp	Lys	Ile	Asn	Ser	Gly	Ala	His	Lys	Ala	
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Thr	Leu	Arg	Ile	Gly	Gln	Asp	Gly	Ile	Ser	Thr	Ser	Ala	Thr	Thr	Asn	
1620					1625					1630						
Leu	Lys	Cys	Ser	Leu	Leu	Val	Leu	Glu	Asn	Glu	Leu	Asn	Ala	Glu	Leu	
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Gly	Leu	Ser	Gly	Ala	Ser	Met	Lys	Leu	Thr	Thr	Asn	Gly	Arg	Phe	Arg	
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Glu	His	Asn	Ala	Lys	Phe	Ser	Leu	Asp	Gly	Lys	Ala	Ala	Leu	Thr	Glu	

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Leu Ser Leu Gly Ser Ala Tyr Gln Ala Met Ile Leu Gly Val Asp Ser			
	1685	1690	1695
Lys Asn Ile Phe Asn Phe Lys Val Ser Gln Glu Gly Leu Lys Leu Ser			
	1700	1705	1710
Asn Asp Met Met Gly Ser Tyr Ala Glu Met Lys Phe Asp His Thr Asn			
	1715	1720	1725
Ser Leu Asn Ile Ala Gly Leu Ser Leu Asp Phe Ser Ser Lys Leu Asp			
	1730	1735	1740
Asn Ile Tyr Ser Ser Asp Lys Phe Tyr Lys Gln Thr Val Asn Leu Gln			
	1745	1750	1755
Leu Gln Pro Tyr Ser Leu Val Thr Thr Leu Asn Ser Asp Leu Lys Tyr			
	1765	1770	1775
Asn Ala Leu Asp Leu Thr Asn Asn Gly Lys Leu Arg Leu Glu Pro Leu			
	1780	1785	1790
Lys Leu His Val Ala Gly Asn Leu Lys Gly Ala Tyr Gln Asn Asn Glu			
	1795	1800	1805
Ile Lys His Ile Tyr Ala Ile Ser Ser Ala Ala Leu Ser Ala Ser Tyr			
	1810	1815	1820
Lys Ala Asp Thr Val Ala Lys Val Gln Gly Val Glu Phe Ser His Arg			
	1825	1830	1835
Leu Asn Thr Asp Ile Ala Gly Leu Ala Ser Ala Ile Asp Met Ser Thr			
	1845	1850	1855
Asn Tyr Asn Ser Asp Ser Leu His Phe Ser Asn Val Phe Arg Ser Val			
	1860	1865	1870
Met Ala Pro Phe Thr Met Thr Ile Asp Ala His Thr Asn Gly Asn Gly			
	1875	1880	1885
Lys Leu Ala Leu Trp Gly Glu His Thr Gly Gln Leu Tyr Ser Lys Phe			
	1890	1895	1900
Leu Leu Lys Ala Glu Pro Leu Ala Phe Thr Phe Ser His Asp Tyr Lys			
	1905	1910	1915
Gly Ser Thr Ser His His Leu Val Ser Arg Lys Ser Ile Ser Ala Ala			
	1925	1930	1935
Leu Glu His Lys Val Ser Ala Leu Leu Thr Pro Ala Glu Gln Thr Gly			
	1940	1945	1950
Thr Trp Lys Leu Lys Thr Gln Phe Asn Asn Asn Glu Tyr Ser Gln Asp			
	1955	1960	1965
Leu Asp Ala Tyr Asn Thr Lys Asp Lys Ile Gly Val Glu Leu Thr Gly			

1970	1975	1980
Arg Thr Leu Ala Asp Leu Thr Leu Leu Asp Ser Pro Ile Lys Val Pro 1985 1990 1995 2000		
Leu Leu Leu Ser Glu Pro Ile Asn Ile Ile Asp Ala Leu Glu Met Arg 2005 2010 2015		
Asp Ala Val Glu Lys Pro Gln Glu Phe Thr Ile Val Ala Phe Val Lys 2020 2025 2030		
Tyr Asp Lys Asn Gln Asp Val His Ser Ile Asn Leu Pro Phe Phe Glu 2035 2040 2045		
Thr Leu Gln Glu Tyr Phe Glu Arg Asn Arg Gln Thr Ile Ile Val Val 2050 2055 2060		
Val Glu Asn Val Gln Arg Asn Leu Lys His Ile Asn Ile Asp Gln Phe 2065 2070 2075 2080		
Val Arg Lys Tyr Arg Ala Ala Leu Gly Lys Leu Pro Gln Gln Ala Asn 2085 2090 2095		
Asp Tyr Leu Asn Ser Phe Asn Trp Glu Arg Gln Val Ser His Ala Lys 2100 2105 2110		
Glu Lys Leu Thr Ala Leu Thr Lys Lys Tyr Arg Ile Thr Glu Asn Asp 2115 2120 2125		
Ile Gln Ile Ala Leu Asp Asp Ala Lys Ile Asn Phe Asn Glu Lys Leu 2130 2135 2140		
Ser Gln Leu Gln Thr Tyr Met Ile Gln Phe Asp Gln Tyr Ile Lys Asp 2145 2150 2155 2160		
Ser Tyr Asp Leu His Asp Leu Lys Ile Ala Ile Ala Asn Ile Ile Asp 2165 2170 2175		
Glu Ile Ile Glu Lys Leu Lys Ser Leu Asp Glu His Tyr His Ile Arg 2180 2185 2190		
Val Asn Leu Val Lys Thr Ile His Asp Leu His Leu Phe Ile Glu Asn 2195 2200 2205		
Ile Asp Phe Asn Lys Ser Gly Ser Ser Thr Ala Ser Trp Ile Gln Asn 2210 2215 2220		
Val Asp Thr Lys Tyr Gln Ile Arg Ile Gln Ile Gln Glu Lys Leu Gln 2225 2230 2235 2240		
Gln Leu Lys Arg His Ile Gln Asn Ile Asp Ile Gln His Leu Ala Gly 2245 2250 2255		
Lys Leu Lys Gln His Ile Glu Ala Ile Asp Val Arg Val Leu Leu Asp 2260 2265 2270		
Gln Leu Gly Thr Thr Ile Ser Phe Glu Arg Ile Asn Asp Val Leu Glu		

[illegible]

2580	2585	2590
Pro Leu Thr Asp Leu Arg Ile Pro Ser Val Gln Ile Asn Phe Lys Asp 2595	2600	2605
Leu Lys Asn Ile Lys Ile Pro Ser Arg Phe Ser Thr Pro Glu Phe Thr 2610	2615	2620
Ile Leu Asn Thr Phe His Ile Pro Ser Phe Thr Ile Asp Phe Val Glu 2625	2630	2635 2640
Met Lys Val Lys Ile Ile Arg Thr Ile Asp Gln Met Gln Asn Ser Glu 2645	2650	2655
Leu Gln Trp Pro Val Pro Asp Ile Tyr Leu Arg Asp Leu Lys Val Glu 2660	2665	2670
Asp Ile Pro Leu Ala Arg Ile Thr Leu Pro Asp Phe Arg Leu Pro Glu 2675	2680	2685
Ile Ala Ile Pro Glu Phe Ile Ile Pro Thr Leu Asn Leu Asn Asp Phe 2690	2695	2700
Gln Val Pro Asp Leu His Ile Pro Glu Phe Gln Leu Pro His Ile Ser 2705	2710	2715 2720
His Thr Ile Glu Val Pro Thr Phe Gly Lys Leu Tyr Ser Ile Leu Lys 2725	2730	2735
Ile Gln Ser Pro Leu Phe Thr Leu Asp Ala Asn Ala Asp Ile Gly Asn 2740	2745	2750
Gly Thr Thr Ser Ala Asn Glu Ala Gly Ile Ala Ala Ser Ile Thr Ala 2755	2760	2765
Lys Gly Glu Ser Lys Leu Glu Val Leu Asn Phe Asp Phe Gln Ala Asn 2770	2775	2780
Ala Gln Leu Ser Asn Pro Lys Ile Asn Pro Leu Ala Leu Lys Glu Ser 2785	2790	2795 2800
Val Lys Phe Ser Ser Lys Tyr Leu Arg Thr Glu His Gly Ser Glu Met 2805	2810	2815
Leu Phe Phe Gly Asn Ala Ile Glu Gly Lys Ser Asn Thr Val Ala Ser 2820	2825	2830
Leu His Thr Glu Lys Asn Thr Leu Glu Leu Ser Asn Gly Val Ile Val 2835	2840	2845
Lys Ile Asn Asn Gln Leu Thr Leu Asp Ser Asn Thr Lys Tyr Phe His 2850	2855	2860
Lys Leu Asn Ile Pro Lys Leu Asp Phe Ser Ser Gln Ala Asp Leu Arg 2865	2870	2875 2880
Asn Glu Ile Lys Thr Leu Leu Lys Ala Gly His Ile Ala Trp Thr Ser		

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Ser Gly Lys Gly Ser Trp Lys Trp Ala Cys Pro Arg Phe Ser Asp Glu		
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Gly Thr His Glu Ser Gln Ile Ser Phe Thr Ile Glu Gly Pro Leu Thr		
2915	2920	2925
Ser Phe Gly Leu Ser Asn Lys Ile Asn Ser Lys His Leu Arg Val Asn		
2930	2935	2940
Gln Asn Leu Val Tyr Glu Ser Gly Ser Leu Asn Phe Ser Lys Leu Glu		
2945	2950	2955
Ile Gln Ser Gln Val Asp Ser Gln His Val Gly His Ser Val Leu Thr		
2965	2970	2975
Ala Lys Gly Met Ala Leu Phe Gly Glu Gly Lys Ala Glu Phe Thr Gly		
2980	2985	2990
Arg His Asp Ala His Leu Asn Gly Lys Val Ile Gly Thr Leu Lys Asn		
2995	3000	3005
Ser Leu Phe Phe Ser Ala Gln Pro Phe Glu Ile Thr Ala Ser Thr Asn		
3010	3015	3020
Asn Glu Gly Asn Leu Lys Val Arg Phe Pro Leu Arg Leu Thr Gly Lys		
3025	3030	3035
Ile Asp Phe Leu Asn Asn Tyr Ala Leu Phe Leu Ser Pro Ser Ala Gln		
3045	3050	3055
Gln Ala Ser Trp Gln Val Ser Ala Arg Phe Asn Gln Tyr Lys Tyr Asn		
3060	3065	3070
Gln Asn Phe Ser Ala Gly Asn Asn Glu Asn Ile Met Glu Ala His Val		
3075	3080	3085
Gly Ile Asn Gly Glu Ala Asn Leu Asp Phe Leu Asn Ile Pro Leu Thr		
3090	3095	3100
Ile Pro Glu Met Arg Leu Pro Tyr Thr Ile Ile Thr Thr Pro Pro Leu		
3105	3110	3115
Lys Asp Phe Ser Leu Trp Glu Lys Thr Gly Leu Lys Glu Phe Leu Lys		
3125	3130	3135
Thr Thr Lys Gln Ser Phe Asp Leu Ser Val Lys Ala Gln Tyr Lys Lys		
3140	3145	3150
Asn Lys His Arg His Ser Ile Thr Asn Pro Leu Ala Val Leu Cys Glu		
3155	3160	3165
Phe Ile Ser Gln Ser Ile Lys Ser Phe Asp Arg His Phe Glu Lys Asn		
3170	3175	3180
Arg Asn Asn Ala Leu Asp Phe Val Thr Lys Ser Tyr Asn Glu Thr Lys		

3185	3190	3195	3200
Ile Lys Phe Asp Lys Tyr Lys Ala Glu Lys Ser His Asp Glu Leu Pro			
3205	3210	3215	
Arg Thr Phe Gln Ile Pro Gly Tyr Thr Val Pro Val Val Asn Val Glu			
3220	3225	3230	
Val Ser Pro Phe Thr Ile Glu Met Ser Ala Phe Gly Tyr Val Phe Pro			
3235	3240	3245	
Lys Ala Val Ser Met Pro Ser Phe Ser Ile Leu Gly Ser Asp Val Arg			
3250	3255	3260	
Val Pro Ser Tyr Thr Leu Ile Leu Pro Ser Leu Glu Leu Pro Val Leu			
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His Val Pro Arg Asn Leu Lys Leu Ser Leu Pro His Phe Lys Glu Leu			
3285	3290	3295	
Cys Thr Ile Ser His Ile Phe Ile Pro Ala Met Gly Asn Ile Thr Tyr			
3300	3305	3310	
Asp Phe Ser Phe Lys Ser Ser Val Ile Thr Leu Asn Thr Asn Ala Glu			
3315	3320	3325	
Leu Phe Asn Gln Ser Asp Ile Val Ala His Leu Leu Ser Ser Ser Ser			
3330	3335	3340	
Ser Val Ile Asp Ala Leu Gln Tyr Lys Leu Glu Gly Thr Thr Arg Leu			
3345	3350	3355	3360
Thr Arg Lys Arg Gly Leu Lys Leu Ala Thr Ala Leu Ser Leu Ser Asn			
3365	3370	3375	
Lys Phe Val Glu Gly Ser His Asn Ser Thr Val Ser Leu Thr Thr Lys			
3380	3385	3390	
Asn Met Glu Val Ser Val Ala Lys Thr Thr Lys Ala Glu Ile Pro Ile			
3395	3400	3405	
Leu Arg Met Asn Phe Lys Gln Glu Leu Asn Gly Asn Thr Lys Ser Lys			
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Pro Thr Val Ser Ser Ser Met Glu Phe Lys Tyr Asp Phe Asn Ser Ser			
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Met Leu Tyr Ser Thr Ala Lys Gly Ala Val Asp His Lys Leu Ser Leu			
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Glu Ser Leu Thr Ser Tyr Phe Ser Ile Glu Ser Ser Thr Lys Gly Asp			
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Val Lys Gly Ser Val Leu Ser Arg Glu Tyr Ser Gly Thr Ile Ala Ser			
3475	3480	3485	
Glu Ala Asn Thr Tyr Leu Asn Ser Lys Ser Thr Arg Ser Ser Val Lys			

3490	3495	3500
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Glu Asn Phe Ala Gly Glu Ala Thr Leu Gln Arg Ile Tyr Ser Leu Trp 3525 3530 3535		
Glu His Ser Thr Lys Asn His Leu Gln Leu Glu Gly Leu Phe Phe Thr 3540 3545 3550		
Asn Gly Glu His Thr Ser Lys Ala Thr Leu Glu Leu Ser Pro Trp Gln 3555 3560 3565		
Met Ser Ala Leu Val Gln Val His Ala Ser Gln Pro Ser Ser Phe His 3570 3575 3580		
Asp Phe Pro Asp Leu Gly Gln Glu Val Ala Leu Asn Ala Asn Thr Lys 3585 3590 3595 3600		
Asn Gln Lys Ile Arg Trp Lys Asn Glu Val Arg Ile His Ser Gly Ser 3605 3610 3615		
Phe Gln Ser Gln Val Glu Leu Ser Asn Asp Gln Glu Lys Ala His Leu 3620 3625 3630		
Asp Ile Ala Gly Ser Leu Glu Gly His Leu Arg Phe Leu Lys Asn Ile 3635 3640 3645		
Ile Leu Pro Val Tyr Asp Lys Ser Leu Trp Asp Phe Leu Lys Leu Asp 3650 3655 3660		
Val Thr Thr Ser Ile Gly Arg Arg Gln His Leu Arg Val Ser Thr Ala 3665 3670 3675 3680		
Phe Val Tyr Thr Lys Asn Pro Asn Gly Tyr Ser Phe Ser Ile Pro Val 3685 3690 3695		
Lys Val Leu Ala Asp Lys Phe Ile Thr Pro Gly Leu Lys Leu Asn Asp 3700 3705 3710		
Leu Asn Ser Val Leu Val Met Pro Thr Phe His Val Pro Phe Thr Asp 3715 3720 3725		
Leu Gln Val Pro Ser Cys Lys Leu Asp Phe Arg Glu Ile Gln Ile Tyr 3730 3735 3740		
Lys Lys Leu Arg Thr Ser Ser Phe Ala Leu Asn Leu Pro Thr Leu Pro 3745 3750 3755 3760		
Glu Val Lys Phe Pro Glu Val Asp Val Leu Thr Lys Tyr Ser Gln Pro 3765 3770 3775		
Glu Asp Ser Leu Ile Pro Phe Phe Glu Ile Thr Val Pro Glu Ser Gln 3780 3785 3790		
Leu Thr Val Ser Gln Phe Thr Leu Pro Lys Ser Val Ser Asp Gly Ile		

3795	3800	3805
Ala Ala Leu Asp Leu Asn Ala Val Ala Asn Lys Ile Ala Asp Phe Glu 3810	3815	3820
Leu Pro Thr Ile Ile Val Pro Glu Gln Thr Ile Glu Ile Pro Ser Ile 3825	3830	3835 3840
Lys Phe Ser Val Pro Ala Gly Ile Val Ile Pro Ser Phe Gln Ala Leu 3845	3850	3855
Thr Ala Arg Phe Glu Val Asp Ser Pro Val Tyr Asn Ala Thr Trp Ser 3860	3865	3870
Ala Ser Leu Lys Asn Lys Ala Asp Tyr Val Glu Thr Val Leu Asp Ser 3875	3880	3885
Thr Cys Ser Ser Thr Val Gln Phe Leu Glu Tyr Glu Leu Asn Val Leu 3890	3895	3900
Gly Thr His Lys Ile Glu Asp Gly Thr Leu Ala Ser Lys Thr Lys Gly 3905	3910	3915 3920
Thr Leu Ala His Arg Asp Phe Ser Ala Glu Tyr Glu Glu Asp Gly Lys 3925	3930	3935
Phe Glu Gly Leu Gln Glu Trp Glu Gly Lys Ala His Leu Asn Ile Lys 3940	3945	3950
Ser Pro Ala Phe Thr Asp Leu His Leu Arg Tyr Gln Lys Asp Lys Lys 3955	3960	3965
Gly Ile Ser Thr Ser Ala Ala Ser Pro Ala Val Gly Thr Val Gly Met 3970	3975	3980
Asp Met Asp Glu Asp Asp Asp Phe Ser Lys Trp Asn Phe Tyr Tyr Ser 3985	3990	3995 4000
Pro Gln Ser Ser Pro Asp Lys Lys Leu Thr Ile Phe Lys Thr Glu Leu 4005	4010	4015
Arg Val Arg Glu Ser Asp Glu Glu Thr Gln Ile Lys Val Asn Trp Glu 4020	4025	4030
Glu Glu Ala Ala Ser Gly Leu Leu Thr Ser Leu Lys Asp Asn Val Pro 4035	4040	4045
Lys Ala Thr Gly Val Leu Tyr Asp Tyr Val Asn Lys Tyr His Trp Glu 4050	4055	4060
His Thr Gly Leu Thr Leu Arg Glu Val Ser Ser Lys Leu Arg Arg Asn 4065	4070	4075 4080
Leu Gln Asn Asn Ala Glu Trp Val Tyr Gln Gly Ala Ile Arg Gln Ile 4085	4090	4095
Asp Asp Ile Asp Val Arg Phe Gln Lys Ala Ala Ser Gly Thr Thr Gly		

4100	4105	4110
Thr Tyr Gln Glu Trp Lys Asp Lys Ala Gln Asn Leu Tyr Gln Glu Leu 4115 4120 4125		
Leu Thr Gln Glu Gly Gln Ala Ser Phe Gln Gly Leu Lys Asp Asn Val 4130 4135 4140		
Phe Asp Gly Leu Val Arg Val Thr Gln Lys Phe His Met Lys Val Lys 4145 4150 4155 4160		
His Leu Ile Asp Ser Leu Ile Asp Phe Leu Asn Phe Pro Arg Phe Gln 4165 4170 4175		
Phe Pro Gly Lys Pro Gly Ile Tyr Thr Arg Glu Glu Leu Cys Thr Met 4180 4185 4190		
Phe Ile Arg Glu Val Gly Thr Val Leu Ser Gln Val Tyr Ser Lys Val 4195 4200 4205		
His Asn Gly Ser Glu Ile Leu Phe Ser Tyr Phe Gln Asp Leu Val Ile 4210 4215 4220		
Thr Leu Pro Phe Glu Leu Arg Lys His Lys Leu Ile Asp Val Ile Ser 4225 4230 4235 4240		
Met Tyr Arg Glu Leu Leu Lys Asp Leu Ser Lys Glu Ala Gln Glu Val 4245 4250 4255		
Phe Lys Ala Ile Gln Ser Leu Lys Thr Thr Glu Val Leu Arg Asn Leu 4260 4265 4270		
Gln Asp Leu Leu Gln Phe Ile Phe Gln Leu Ile Glu Asp Asn Ile Lys 4275 4280 4285		
Gln Leu Lys Glu Met Lys Phe Thr Tyr Leu Ile Asn Tyr Ile Gln Asp 4290 4295 4300		
Glu Ile Asn Thr Ile Phe Asn Asp Tyr Ile Pro Tyr Val Phe Lys Leu 4305 4310 4315 4320		
Leu Lys Glu Asn Leu Cys Leu Asn Leu His Lys Phe Asn Glu Phe Ile 4325 4330 4335		
Gln Asn Glu Leu Gln Glu Ala Ser Gln Glu Leu Gln Gln Ile His Gln 4340 4345 4350		
Tyr Ile Met Ala Leu Arg Glu Glu Tyr Phe Asp Pro Ser Ile Val Gly 4355 4360 4365		
Trp Thr Val Lys Tyr Tyr Glu Leu Glu Glu Lys Ile Val Ser Leu Ile 4370 4375 4380		
Lys Asn Leu Leu Val Ala Leu Lys Asp Phe His Ser Glu Tyr Ile Val 4385 4390 4395 4400		
Ser Ala Ser Asn Phe Thr Ser Gln Leu Ser Ser Gln Val Glu Gln Phe		

4405	4410	4415
Leu His Arg Asn Ile Gln Glu Tyr Leu Ser Ile Leu Thr Asp Pro Asp		
4420	4425	4430
Gly Lys Gly Lys Glu Lys Ile Ala Glu Leu Ser Ala Thr Ala Gln Glu		
4435	4440	4445
Ile Ile Lys Ser Gln Ala Ile Ala Thr Lys Lys Ile Ile Ser Asp Tyr		
4450	4455	4460
His Gln Gln Phe Arg Tyr Lys Leu Gln Asp Phe Ser Asp Gln Leu Ser		
4465	4470	4475
Asp Tyr Tyr Glu Lys Phe Ile Ala Glu Ser Lys Arg Leu Ile Asp Leu		
4485	4490	4495
Ser Ile Gln Asn Tyr His Thr Phe Leu Ile Tyr Ile Thr Glu Leu Leu		
4500	4505	4510
Lys Lys Leu Gln Ser Thr Thr Val Met Asn Pro Tyr Met Lys Leu Ala		
4515	4520	4525
Pro Gly Glu Leu Thr Ile Ile Leu		
4530	4535	

<210> 2
 <211> 3
 <212> PRT
 <213> Homo sapiens

<220>
 <221> MOD_RES
 <222> (2)
 <223> x = anything

<400> 2
 Pro Xaa Pro
 1

<210> 3
 <211> 46
 <212> PRT
 <213> Homo sapiens

<400> 3
 Lys Tyr Thr Tyr Asn Tyr Glu Ala Glu Ser Ser Ser Gly Val Pro Gly
 1 5 10 15
 Thr Ala Asp Ser Arg Ser Ala Thr Arg Ile Asn Cys Lys Val Glu Leu
 20 25 30
 Glu Val Pro Gln Leu Cys Ser Phe Ile Leu Lys Thr Ser Gln
 35 40 45

<210> 4
<211> 45
<212> PRT
<213> Homo sapiens

<400> 4
Ala Tyr Asp Phe Asn Tyr Pro Ile Lys Lys Asp Ser Ser Ser Gln Leu
1 5 10 15

Leu Ser Val Gln Gln Gly Glu Thr Ile Tyr Ile Leu Asn Lys Asn Ser
20 25 30

Ser Gly Trp Trp Asp Gly Leu Val Ile Asp Asp Ser Asn
35 40 45

<210> 5
<211> 45
<212> PRT
<213> Homo sapiens

<400> 5
Val Tyr Gly Phe Asn Pro Glu Gly Lys Ala Leu Leu Lys Lys Thr Lys
1 5 10 15

Asn Ser Glu Glu Phe Ala Ala Ala Met Ser Arg Tyr Glu Leu Lys Leu
20 25 30

Ala Ile Pro Glu Gly Lys Gln Val Phe Leu Tyr Pro Glu
35 40 45

<210> 6
<211> 47
<212> PRT
<213> Homo sapiens

<400> 6
Leu Tyr Asp Phe Val Ala Ser Gly Asp Asn Thr Leu Ser Ile Thr Lys
1 5 10 15

Gly Glu Lys Leu Arg Val Leu Gly Tyr Asn His Tyr Asn Gly Glu Trp
20 25 30

Cys Glu Ala Gln Thr Lys Asn Gly Gln Gly Trp Val Pro Ser Asn
35 40 45

<210> 7
<211> 44
<212> PRT
<213> Homo sapiens

<400> 7
Phe Leu Pro Phe Ser Tyr Asn Asn Lys Tyr Gly Met Val Ala Gln Val
1 5 10 15

Thr Gln Thr Leu Lys Leu Glu Asp Thr Pro Lys Ile Asn Ser Arg Phe
20 25 30

Phe Gly Glu Gly Thr Lys Lys Met Gly Leu Ala Phe
35 40

<210> 8

<211> 43

<212> PRT

<213> Homo sapiens

<400> 8

Leu Phe Asp Tyr Lys Ala Gln Arg Glu Asp Glu Leu Thr Phe Thr Lys
1 5 10 15

Ser Ala Ile Ile Gln Asn Val Glu Lys Gln Glu Gly Gly Trp Trp Arg
20 25 30

Gly Asp Tyr Gly Gly Lys Lys Gln Leu Trp Phe
35 40

<210> 9

<211> 45

<212> PRT

<213> Homo sapiens

<400> 9

Phe Leu Pro Phe Ser Tyr Asn Asn Lys Tyr Gly Met Val Ala Gln Val
1 5 10 15

Thr Gln Thr Leu Lys Leu Glu Asp Thr Pro Lys Ile Asn Ser Arg Phe
20 25 30

Phe Gly Glu Gly Thr Lys Lys Met Gly Leu Ala Phe Glu
35 40 45

<210> 10

<211> 46

<212> PRT

<213> Homo sapiens

<400> 10

Leu His Ser Tyr Glu Pro Ser His Asp Gly Asp Leu Gly Phe Glu Lys
1 5 10 15

Gly Glu Gln Leu Arg Ile Leu Glu Gln Ser Gly Glu Trp Trp Lys Ala
20 25 30

Gln Ser Leu Thr Thr Gly Gln Glu Gly Phe Ile Pro Phe Asn
35 40 45

<210> 11

<211> 62
<212> PRT
<213> Homo sapiens

<400> 11
Tyr Thr Tyr Leu Ile Leu Arg Val Ile Gly Asn Met Gly Gln Thr Met
1 5 10 15
Glu Gln Leu Thr Pro Glu Leu Lys Ser Ser Ile Leu Lys Cys Val Gln
20 25 30
Ser Thr Lys Pro Ser Leu Met Ile Gln Lys Ala Ala Ile Gln Ala Leu
35 40 45
Arg Lys Met Glu Pro Lys Asp Lys Asp Gln Glu Val Leu Leu
50 55 60

<210> 12
<211> 53
<212> PRT
<213> Homo sapiens

<400> 12
Val Val Ala Leu Phe Asp Tyr Ala Ala Val Asn Asp Arg Asp Leu Gln
1 5 10 15
Val Leu Lys Gly Glu Lys Leu Gln Val Leu Arg Ser Thr Gly Asp Trp
20 25 30
Trp Leu Ala Arg Ser Leu Val Thr Gly Arg Glu Gly Tyr Val Pro Ser
35 40 45
Asn Phe Val Ala Pro
50

<210> 13
<211> 50
<212> PRT
<213> Homo sapiens

<400> 13
Ala Phe Gly Phe Ala Ser Ala Asp Leu Ile Glu Ile Gly Leu Glu Gly
1 5 10 15
Lys Gly Phe Glu Pro Thr Leu Glu Ala Leu Phe Gly Lys Gln Gly Phe
20 25 30
Phe Pro Asp Ser Val Asn Lys Ala Leu Tyr Trp Val Asn Gly Gln Val
35 40 45
Pro Asp
50

<210> 14

<211> 48
<212> PRT
<213> Homo sapiens

<400> 14
Leu Tyr Asp Phe Ala Ala Glu Asn Pro Asp Glu Leu Thr Phe Asn Glu
1 5 10 15
Gly Ala Val Val Thr Val Ile Asn Lys Ser Asn Pro Asp Trp Trp Glu
20 25 30
Gly Glu Leu Asn Gly Gln Arg Gly Val Phe Pro Ala Ser Tyr Val Glu
35 40 45

<210> 15
<211> 46
<212> PRT
<213> Homo sapiens

<400> 15
Phe Gly Tyr Thr Lys Asp Asp Lys His Glu Gln Asp Met Val Asn Gly
1 5 10 15
Ile Met Leu Ser Val Glu Lys Leu Ile Lys Asp Leu Lys Ser Lys Glu
20 25 30
Val Pro Glu Ala Arg Ala Tyr Leu Arg Ile Leu Gly Glu Glu
35 40 45

<210> 16
<211> 49
<212> PRT
<213> Homo sapiens

<400> 16
Tyr Asp Tyr Lys Lys Glu Glu Glu Asp Ile Asp Leu His Leu Gly Asp
1 5 10 15
Ile Leu Thr Val Asn Lys Gly Ser Leu Val Ala Leu Gly Phe Ser Asp
20 25 30
Gly Gln Glu Ala Lys Pro Glu Glu Ile Gly Trp Leu Asn Gly Tyr Asn
35 40 45

Glu

<210> 17
<211> 52
<212> PRT
<213> Homo sapiens

<400> 17

Phe Asp Tyr His Gln Phe Val Asp Glu Thr Asn Asp Lys Ile Arg Glu
1 5 10 15

Val Thr Gln Arg Leu Asn Gly Glu Ile Gln Ala Leu Glu Leu Pro Gln
20 25 30

Lys Ala Glu Ala Leu Lys Leu Phe Leu Glu Glu Thr Lys Ala Thr Val
35 40 45

Ala Val Tyr Leu
50

<210> 18

<211> 46

<212> PRT

<213> Homo sapiens

<400> 18

Tyr Asp Tyr Gln Glu Lys Ser Pro Arg Glu Val Thr Met Lys Lys Gly
1 5 10 15

Asp Ile Leu Thr Leu Leu Asn Ser Thr Asn Lys Asp Trp Trp Lys Val
20 25 30

Glu Val Asn Asp Arg Gln Gly Phe Val Pro Ala Ala Tyr Val
35 40 45

<210> 19

<211> 51

<212> PRT

<213> Homo sapiens

<400> 19

Tyr Asp Met Asp Ile Gln Gln Glu Leu Gln Arg Tyr Leu Ser Leu Val
1 5 10 15

Gly Gln Val Tyr Ser Thr Leu Val Thr Tyr Ile Ser Asp Trp Trp Thr
20 25 30

Leu Ala Ala Lys Asn Leu Thr Asp Phe Ala Glu Gln Tyr Ser Ile Gln
35 40 45

Asp Trp Ala
50

<210> 20

<211> 51

<212> PRT

<213> Homo sapiens

<400> 20

Phe Asp Tyr Lys Ala Gln Arg Glu Asp Glu Leu Thr Phe Thr Lys Ser

1 5 10 15
 Ala Ile Ile Gln Asn Val Glu Lys Gln Asp Gly Gly Trp Trp Arg Gly
 20 25 30
 Asp Tyr Gly Gly Lys Lys Gln Leu Trp Phe Pro Ser Asn Tyr Val Glu
 35 40 45
 Glu Met Ile
 50

<210> 21
 <211> 55
 <212> PRT
 <213> Homo sapiens

<400> 21
 Tyr Asp Met Asp Ile Gln Gln Glu Leu Gln Arg Tyr Leu Ser Leu Val
 1 5 10 15
 Gly Gln Val Tyr Ser Thr Leu Val Thr Tyr Ile Ser Asp Trp Trp Thr
 20 25 30
 Leu Ala Ala Lys Asn Leu Thr Asp Phe Ala Glu Gln Tyr Ser Ile Gln
 35 40 45
 Asp Trp Ala Lys Arg Met Lys
 50 55

<210> 22
 <211> 53
 <212> PRT
 <213> Homo sapiens

<400> 22
 Ile Gln Asp Tyr Glu Pro Arg Leu Thr Asp Glu Ile Arg Ile Ser Leu
 1 5 10 15
 Gly Glu Lys Val Lys Ile Leu Ala Thr His Thr Asp Gly Trp Cys Leu
 20 25 30
 Val Glu Lys Cys Asn Thr Arg Lys Gly Thr Ile His Val Ser Val Asp
 35 40 45
 Asp Lys Arg Tyr Leu
 50

<210> 23
 <211> 49
 <212> PRT
 <213> Homo sapiens

<400> 23
 Tyr Asp Tyr Glu Ala Arg Thr Glu Asp Asp Leu Thr Phe Thr Lys Gly

1 5 10 15

Glu Lys Phe His Ile Leu Asn Asn Thr Glu Gly Asp Trp Trp Glu Ala

 20 25 30

Arg Ser Leu Ser Ser Gly Lys Thr Gly Cys Ile Pro Ser Asn Tyr Val

 35 40 45

Ala

<210> 24
 <211> 45
 <212> PRT
 <213> Homo sapiens

<400> 24

Thr Tyr Asp Phe Ser Phe Lys Ser Ser Val Ile Thr Leu Asn Thr Asn

1 5 10 15

Ala Glu Leu Phe Asn Gln Ser Asp Ile Val Ala His Leu Leu Ser Ser

 20 25 30

Ser Ser Ser Val Ile Asp Ala Leu Gln Tyr Lys Leu Glu

 35 40 45

<210> 25
 <211> 47
 <212> PRT
 <213> Homo sapiens

<400> 25

Asp Phe Asn Tyr Pro Ile Lys Lys Asp Ser Ser Ser Gln Leu Leu Ser

1 5 10 15

Val Gln Gln Gly Glu Thr Ile Tyr Ile Leu Asn Lys Asn Ser Ser Gly

 20 25 30

Trp Trp Asp Gly Leu Val Ile Asp Asp Ser Asn Gly Lys Val Asn

 35 40 45

<210> 26
 <211> 49
 <212> PRT
 <213> Homo sapiens

<400> 26

Lys Tyr Asp Phe Asn Ser Ser Met Leu Tyr Ser Thr Ala Lys Gly Ala

1 5 10 15

Val Asp His Lys Leu Ser Leu Glu Ser Leu Thr Ser Tyr Phe Ser Ile

 20 25 30

Glu Ser Ser Thr Lys Gly Asp Val Lys Gly Ser Val Leu Ser Arg Glu

35

40

45

Tyr

<210> 27

<211> 52

<212> PRT

<213> Homo sapiens

<400> 27

Glu Pro Tyr Val Ala Ile Lys Ala Tyr Thr Ala Val Glu Gly Asp Glu
 1 5 10 15

Val Ser Leu Leu Glu Gly Glu Ala Val Glu Val Ile His Lys Leu Leu
 20 25 30

Asp Gly Trp Trp Val Ile Arg Lys Asp Asp Val Thr Gly Tyr Phe Pro
 35 40 45

Ser Met Tyr Leu
 50

<210> 28

<211> 54

<212> PRT

<213> Homo sapiens

<400> 28

Leu Trp Asp Phe Leu Lys Leu Asp Val Thr Thr Ser Ile Gly Arg Arg
 1 5 10 15

Gln His Leu Arg Val Ser Thr Ala Phe Val Tyr Thr Lys Asn Pro Asn
 20 25 30

Gly Tyr Ser Phe Ser Ile Pro Val Lys Val Leu Ala Asp Lys Phe Ile
 35 40 45

Thr Pro Gly Leu Lys Leu
 50

<210> 29

<211> 55

<212> PRT

<213> Homo sapiens

<400> 29

Leu Tyr Asp Phe Lys Ala Glu Lys Ala Asp Glu Leu Thr Thr Tyr Val
 1 5 10 15

Gly Glu Asn Leu Phe Ile Cys Ala His His Asn Cys Glu Trp Phe Ile
 20 25 30

Ala Lys Pro Ile Gly Arg Leu Gly Gly Pro Gly Leu Val Pro Val Gly

35 40 45
 Phe Val Ser Ile Ile Asp Ile
 50 55

 <210> 30
 <211> 47
 <212> PRT
 <213> Homo sapiens

 <400> 30
 Val Leu Tyr Asp Tyr Val Asn Lys Tyr His Trp Glu His Thr Gly Leu
 1 5 10 15
 Thr Leu Arg Glu Val Ser Ser Lys Leu Arg Arg Asn Leu Gln Asn Asn
 20 25 30
 Ala Glu Trp Val Tyr Gln Gly Ala Ile Arg Gln Ile Asp Asp Ile
 35 40 45

<210> 31
 <211> 40
 <212> PRT
 <213> Homo sapiens

 <400> 31
 Val Leu Tyr Asp Phe Lys Ala Glu Lys Ala Asp Glu Leu Thr Thr Tyr
 1 5 10 15
 Val Gly Glu Asn Leu Phe Ile Cys Ala His His Asn Cys Glu Trp Phe
 20 25 30
 Ile Ala Lys Pro Ile Gly Arg Leu
 35 40

<210> 32
 <211> 43
 <212> PRT
 <213> Homo sapiens

 <400> 32
 Lys Pro Gly Ile Tyr Thr Arg Glu Glu Leu Cys Thr Met Phe Ile Arg
 1 5 10 15
 Glu Val Gly Thr Val Leu Ser Gln Val Tyr Ser Lys Val His Asn Gly
 20 25 30
 Ser Glu Ile Leu Phe Ser Tyr Phe Gln Asp Leu
 35 40

<210> 33
 <211> 52
 <212> PRT

<213> Homo sapiens

<400> 33

Leu Phe Gly Phe Val Pro Glu Thr Lys Glu Glu Leu Gln Val Met Pro
1 5 10 15

Gly Asn Ile Val Phe Val Leu Lys Lys Gly Asn Asp Asn Trp Ala Thr
20 25 30

Val Met Phe Asn Gly Gln Lys Gly Leu Val Pro Cys Asn Tyr Leu Glu
35 40 45

Pro Val Glu Leu
50

<210> 34

<211> 43

<212> PRT

<213> Homo sapiens

<400> 34

Gly Lys Pro Gly Ile Tyr Thr Arg Glu Glu Leu Cys Thr Met Phe Ile
1 5 10 15

Arg Glu Val Gly Thr Val Leu Ser Gln Val Tyr Ser Lys Val His Asn
20 25 30

Gly Ser Glu Ile Leu Phe Ser Tyr Phe Gln Asp
35 40

<210> 35

<211> 52

<212> PRT

<213> Homo sapiens

<400> 35

Ala Lys Phe Asp Tyr Val Ala Gln Gln Glu Gln Glu Leu Asp Ile Lys
1 5 10 15

Lys Asn Glu Arg Leu Trp Leu Leu Asp Asp Ser Lys Ser Trp Trp Arg
20 25 30

Val Arg Asn Ser Met Asn Lys Thr Gly Phe Val Pro Ser Asn Tyr Val
35 40 45

Glu Arg Lys Asn
50

<210> 36

<212> PRT

<213> Homo sapiens

<400> 36

<210> 37
<211> 106
<212> PRT
<213> Homo sapiens

<400> 37
Phe Phe Gly Glu Gly Thr Lys Lys Met Gly Leu Ala Phe Glu Ser Thr
1 5 10 15
Lys Ser Thr Ser Pro Pro Lys Gln Ala Glu Ala Val Leu Lys Thr Leu
20 25 30
Gln Glu Leu Lys Lys Leu Thr Ile Ser Glu Gln Asn Ile Gln Arg Ala
35 40 45
Asn Leu Phe Asn Lys Leu Val Thr Glu Leu Arg Gly Leu Ser Asp Glu
50 55 60
Ala Val Thr Ser Leu Leu Pro Gln Leu Ile Glu Val Ser Ser Pro Ile
65 70 75 80
Thr Leu Gln Ala Leu Val Gln Cys Gly Gln Pro Cys Ser Thr His Ile
85 90 95
Leu Gln Trp Leu Lys Arg Val His Ala Asn
100 105

<210> 38
<211> 91
<212> PRT
<213> Homo sapiens

<400> 38
Trp Phe His Gly Lys Ile Ser Lys Gln Glu Ala Tyr Asn Leu Leu Met
1 5 10 15
Thr Val Gly Gln Ala Cys Ser Phe Leu Val Arg Pro Ser Asp Asn Thr
20 25 30
Pro Gly Asp Tyr Ser Leu Tyr Phe Arg Thr Ser Glu Asn Ile Gln Arg
35 40 45
Phe Lys Ile Cys Pro Thr Pro Asn Asn Gln Phe Met Met Gly Gly Arg
50 55 60
Tyr Tyr Asn Ser Ser Ile Gly Asp Ile Ile Asp His Tyr Arg Lys Glu
65 70 75 80
Gln Ile Val Glu Gly Tyr Tyr Leu Lys Glu Pro
85 90

<210> 39
<211> 93

<212> PRT
<213> Homo sapiens

<400> 39
Ile Met Leu Ser Val Glu Lys Leu Ile Lys Asp Leu Lys Ser Lys Glu
1 5 10 15
Val Pro Glu Ala Arg Ala Tyr Leu Arg Ile Leu Gly Glu Glu Leu Gly
20 25 30
Phe Ala Ser Leu His Asp Leu Gln Leu Leu Gly Lys Leu Leu Leu Met
35 40 45
Gly Ala Arg Thr Leu Gln Gly Ile Pro Gln Met Ile Gly Glu Val Ile
50 55 60
Arg Lys Gly Ser Lys Asn Asp Phe Phe Leu His Tyr Ile Phe Met Glu
65 70 75 80
Asn Ala Phe Glu Leu Pro Thr Gly Ala Gly Leu Gln Leu
85 90

<210> 40
<211> 89
<212> PRT
<213> Homo sapiens

<400> 40
Trp Phe His Gly Lys Ile Ser Lys Gln Glu Ala Tyr Asn Leu Leu Met
1 5 10 15
Thr Val Gly Gln Ala Cys Ser Phe Leu Val Arg Pro Ser Asp Asn Thr
20 25 30
Pro Gly Asp Tyr Ser Leu Tyr Phe Arg Thr Ser Glu Asn Ile Gln Arg
35 40 45
Phe Lys Ile Cys Pro Thr Pro Asn Asn Gln Phe Met Met Gly Gly Arg
50 55 60
Tyr Tyr Asn Ser Ser Ile Gly Asp Ile Ile Asp His Tyr Arg Lys Glu
65 70 75 80
Gln Ile Val Glu Gly Tyr Tyr Leu Lys
85

<210> 41
<211> 77
<212> PRT
<213> Homo sapiens

<400> 41
Tyr Phe His Lys Leu Asn Ile Pro Lys Leu Asp Phe Ser Ser Gln Ala
1 5 10 15

Asp Leu Arg Asn Glu Ile Lys Thr Leu Leu Lys Ala Gly His Ile Ala
20 25 30

Trp Thr Ser Ser Gly Lys Gly Ser Trp Lys Trp Ala Cys Pro Arg Phe
35 40 45

Ser Asp Glu Gly Thr His Glu Ser Gln Ile Ser Phe Thr Ile Glu Gly
50 55 60

Pro Leu Thr Ser Phe Gly Leu Ser Asn Lys Ile Asn Ser
65 70 75

<210> 42

<212> PRT

<213> Homo sapiens

<400> 42

<210> 43

<211> 100

<212> PRT

<213> Homo sapiens

<400> 43

Phe Phe Ser Ala Gln Pro Phe Glu Ile Thr Ala Ser Thr Asn Asn Glu
1 5 10 15

Gly Asn Leu Lys Val Arg Phe Pro Leu Arg Leu Thr Gly Lys Ile Asp
20 25 30

Phe Leu Asn Asn Tyr Ala Leu Phe Leu Ser Pro Ser Ala Gln Gln Ala
35 40 45

Ser Trp Gln Val Ser Ala Arg Phe Asn Gln Tyr Lys Tyr Asn Gln Asn
50 55 60

Phe Ser Ala Gly Asn Asn Glu Asn Ile Met Glu Ala His Val Gly Ile
65 70 75 80

Asn Gly Glu Ala Asn Leu Asp Phe Leu Asn Ile Pro Leu Thr Ile Pro
85 90 95

Glu Met Arg Leu
100

<210> 44

<211> 106

<212> PRT

<213> Homo sapiens

<400> 44

Trp Phe His Gly Lys Leu Gly Ala Gly Arg Asp Gly Arg His Ile Ala
1 5 10 15

Glu Arg Leu Leu Thr Glu Tyr Cys Ile Glu Thr Gly Ala Pro Asp Gly
 20 25 30
 Ser Phe Leu Val Arg Glu Ser Glu Thr Phe Val Gly Asp Tyr Thr Leu
 35 40 45
 Ser Phe Trp Arg Asn Gly Lys Val Gln His Cys Arg Ile His Ser Arg
 50 55 60
 Gln Asp Ala Gly Thr Pro Lys Phe Phe Leu Thr Asp Asn Leu Val Phe
 65 70 75 80
 Asp Ser Leu Tyr Asp Leu Ile Thr His Tyr Gln Gln Val Pro Leu Arg
 85 90 95
 Cys Asn Glu Phe Glu Met Arg Leu Ser Glu
 100 105

<210> 45
 <211> 91
 <212> PRT
 <213> Homo sapiens

<400> 45
 Phe Pro Gly Lys Pro Gly Ile Tyr Thr Arg Glu Glu Leu Cys Thr Met
 1 5 10 15
 Phe Ile Arg Glu Val Gly Thr Val Leu Ser Gln Val Tyr Ser Lys Val
 20 25 30
 His Asn Gly Ser Glu Ile Leu Phe Ser Tyr Phe Gln Asp Leu Val Ile
 35 40 45
 Thr Leu Pro Phe Glu Leu Arg Lys His Lys Leu Ile Asp Val Ile Ser
 50 55 60
 Met Tyr Arg Glu Leu Leu Lys Asp Leu Ser Lys Glu Ala Gln Glu Val
 65 70 75 80
 Phe Lys Ala Ile Gln Ser Leu Lys Thr Thr Glu
 85 90

<210> 46
 <211> 203
 <212> PRT
 <213> Homo sapiens

<400> 46
 Val Ser Asp Gly Ile Ala Ala Leu Asp Leu Asn Ala Val Ala Asn Lys
 1 5 10 15
 Ile Ala Asp Phe Glu Leu Pro Thr Ile Ile Val Pro Glu Gln Thr Ile
 20 25 30

Gln Ile Ala Ser Gly Met Ala Tyr Val Glu Arg Met Asn Tyr Val His
 100 105 110
 Arg Asp Leu Arg Ala Ala Asn Ile Leu Val Gly Glu Asn Leu Val Cys
 115 120 125
 Lys Val Ala Asp Phe Gly Leu Ala Arg Leu Ile Glu Asp Asn Glu Tyr
 130 135 140
 Thr Ala Arg Gln Gly Ala Lys Phe Pro Ile Lys Trp Thr Ala Pro Glu
 145 150 155 160
 Ala Ala Leu Tyr Gly Arg Phe Thr Ile Lys Ser Asp Val Trp Ser Phe
 165 170 175
 Gly Ile Leu Leu Thr Glu Leu Thr Thr Lys Gly Arg Val Pro Tyr Pro
 180 185 190
 Gly Met Val Asn Arg Glu Val Leu Asp Gln Val Glu Arg Gly Tyr Arg
 195 200 205
 Met Pro Cys Pro Pro Glu
 210

<210> 48
 <211> 213
 <212> PRT
 <213> Homo sapiens

<400> 48
 Leu Gly Asn Gly Gln Phe Gly Glu Val Trp Met Gly Thr Trp Asn Gly
 1 5 10 15
 Asn Thr Lys Val Ala Ile Lys Thr Leu Lys Pro Gly Thr Met Ser Pro
 20 25 30
 Glu Ser Phe Leu Glu Glu Ala Gln Ile Met Lys Lys Leu Lys His Asp
 35 40 45
 Lys Leu Val Gln Leu Tyr Ala Val Val Ser Glu Glu Pro Ile Tyr Ile
 50 55 60
 Val Thr Glu Tyr Met Asn Lys Gly Ser Leu Leu Asp Phe Leu Lys Asp
 65 70 75 80
 Gly Glu Gly Arg Ala Leu Lys Leu Pro Asn Leu Val Asp Met Ala Ala
 85 90 95
 Gln Val Ala Ala Gly Met Ala Tyr Ile Glu Arg Met Asn Tyr Ile His
 100 105 110
 Arg Asp Leu Arg Ser Ala Asn Ile Leu Val Gly Asn Gly Leu Ile Cys
 115 120 125
 Lys Ile Ala Asp Phe Gly Leu Ala Arg Leu Ile Glu Asp Asn Glu Tyr

130	135	140
Thr Ala Arg Gln Gly	Ala Lys Phe Pro Ile Lys	Trp Thr Ala Pro Glu
145	150	155 160
Ala Ala Leu Tyr Gly	Arg Phe Thr Ile Lys Ser	Asp Val Trp Ser Phe
	165	170 175
Gly Ile Leu Leu Thr	Glu Leu Val Thr Lys Gly	Arg Val Pro Tyr Pro
	180	185 190
Gly Met Asn Asn Arg	Glu Val Leu Glu Gln Val Glu	Arg Gly Tyr Arg
	195	200 205
Met Pro Cys Pro Gln		
210		

<210> 49
 <211> 213
 <212> PRT
 <213> Homo sapiens

<400> 49

Leu Gly Ala Gly Gln Phe Gly Glu Val Trp Met Ala Thr Tyr Asn Lys
1 5 10 15
His Thr Lys Val Ala Val Lys Thr Met Lys Pro Gly Ser Met Ser Val
20 25 30
Glu Ala Phe Leu Ala Glu Ala Asn Val Met Lys Thr Leu Gln His Asp
35 40 45
Lys Leu Val Lys Leu His Ala Val Val Thr Lys Glu Pro Ile Tyr Ile
50 55 60
Ile Thr Glu Phe Met Ala Lys Gly Ser Leu Leu Asp Phe Leu Lys Ser
65 70 75 80
Asp Glu Gly Ser Lys Gln Pro Leu Pro Lys Leu Ile Asp Phe Ser Ala
85 90 95
Gln Ile Ala Glu Gly Met Ala Phe Ile Glu Gln Arg Asn Tyr Ile His
100 105 110
Arg Asp Leu Arg Ala Ala Asn Ile Leu Val Ser Ala Ser Leu Val Cys
115 120 125
Lys Ile Ala Asp Phe Gly Leu Ala Arg Val Ile Glu Asp Asn Glu Tyr
130 135 140
Thr Ala Arg Glu Gly Ala Lys Phe Pro Ile Lys Trp Thr Ala Pro Glu
145 150 155 160
Ala Ile Asn Phe Gly Ser Phe Thr Ile Lys Ser Asp Val Trp Ser Phe
165 170 175

Gly Ile Leu Leu Met Glu Ile Val Thr Tyr Gly Arg Ile Pro Tyr Pro
180 185 190

Gly Met Ser Asn Pro Glu Val Ile Arg Ala Leu Glu Arg Gly Tyr Arg
195 200 205

Met Pro Arg Pro Glu
210

<210> 50

<211> 218

<212> PRT

<213> Homo sapiens

<400> 50

Leu Gly Ala Gly Gln Phe Gly Glu Val Trp Met Gly Tyr Tyr Asn Asn
1 5 10 15

Ser Thr Lys Val Ala Val Lys Thr Leu Lys Pro Gly Thr Met Ser Val
20 25 30

Gln Ala Phe Leu Glu Glu Ala Asn Leu Met Lys Thr Leu Gln His Asp
35 40 45

Lys Leu Val Arg Leu Tyr Ala Val Val Thr Arg Glu Glu Pro Ile Tyr
50 55 60

Ile Ile Thr Glu Tyr Met Ala Lys Gly Ser Leu Leu Asp Phe Leu Lys
65 70 75 80

Ser Asp Glu Gly Gly Lys Val Leu Leu Pro Lys Leu Ile Asp Phe Ser
85 90 95

Ala Gln Ile Ala Glu Gly Met Ala Tyr Ile Glu Arg Lys Asn Tyr Ile
100 105 110

His Arg Asp Leu Arg Ala Ala Asn Val Leu Val Ser Glu Ser Leu Met
115 120 125

Cys Lys Ile Ala Asp Phe Gly Leu Ala Arg Val Ile Glu Asp Asn Glu
130 135 140

Tyr Thr Ala Arg Glu Gly Ala Lys Phe Pro Ile Lys Trp Thr Ala Pro
145 150 155 160

Glu Ala Ile Asn Phe Gly Cys Phe Thr Ile Lys Ser Asp Val Trp Ser
165 170 175

Phe Gly Ile Leu Leu Tyr Glu Ile Val Thr Tyr Gly Lys Ile Pro Tyr
180 185 190

Pro Gly Arg Thr Asn Ala Asp Val Met Thr Ala Leu Ser Gln Gly Tyr
195 200 205

Arg Met Pro Arg Val Glu Asn Cys Pro Asp
210 215

<210> 51
<211> 213
<212> PRT
<213> Homo sapiens

<400> 51

Leu Gly Ala Gly Gln Phe Gly Glu Val Trp Met Gly Tyr Tyr Asn Gly
1 5 10 15

His Thr Lys Val Ala Val Lys Ser Leu Lys Gln Gly Ser Met Ser Pro
20 25 30

Asp Ala Phe Leu Ala Glu Ala Asn Leu Met Lys Gln Leu Gln His Gln
35 40 45

Arg Leu Val Arg Leu Tyr Ala Val Val Thr Gln Glu Pro Ile Tyr Ile
50 55 60

Ile Thr Glu Tyr Met Glu Asn Gly Ser Leu Val Asp Phe Leu Lys Thr
65 70 75 80

Pro Ser Gly Ile Lys Leu Thr Ile Asn Lys Leu Leu Asp Met Ala Ala
85 90 95

Gln Ile Ala Glu Gly Met Ala Phe Ile Glu Glu Arg Asn Tyr Ile His
100 105 110

Arg Asp Leu Arg Ala Ala Asn Ile Leu Val Ser Asp Thr Leu Ser Cys
115 120 125

Lys Ile Ala Asp Phe Gly Leu Ala Arg Leu Ile Glu Asp Asn Glu Tyr
130 135 140

Thr Ala Arg Glu Gly Ala Lys Phe Pro Ile Lys Trp Thr Ala Pro Glu
145 150 155 160

Ala Ile Asn Tyr Gly Thr Phe Thr Ile Lys Ser Asp Val Trp Ser Phe
165 170 175

Gly Ile Leu Leu Thr Glu Ile Val Thr His Gly Arg Ile Pro Tyr Pro
180 185 190

Gly Met Thr Asn Pro Glu Val Ile Gln Asn Leu Glu Arg Gly Tyr Arg
195 200 205

Met Val Arg Pro Asp
210

<210> 52
<211> 13
<212> PRT
<213> Homo sapiens

<400> 52

Arg Lys Asn Tyr Ile His Arg Asp Leu Arg Ala Ala Asn
1 5 10

<210> 53
<211> 12
<212> PRT
<213> Homo sapiens

<400> 53
Lys Gly Thr Leu Ala His Arg Asp Phe Ser Ala Glu
1 5 10

<210> 54
<211> 11
<212> PRT
<213> Homo sapiens

<400> 54
Thr Lys Val Ala Val Lys Thr Leu Lys Pro Gly
1 5 10

<210> 55
<211> 11
<212> PRT
<213> Homo sapiens

<400> 55
Asp Lys Val Ala Ile Lys Thr Ile Arg Glu Gly
1 5 10

<210> 56
<211> 11
<212> PRT
<213> Homo sapiens

<400> 56
Asp Leu Asn Ala Val Ala Asn Lys Ile Ala Asp
1 5 10

<210> 57
<211> 34
<212> PRT
<213> Homo sapiens

<400> 57
Thr Ser Leu Arg Ala Pro Thr Met Pro Pro Pro Leu Pro Pro Val Pro
1 5 10 15
Pro Gln Pro Ala Arg Arg Gln Ser Arg Arg Leu Pro Ala Ser Pro Val
20 25 30

Ile Ser

<210> 58
<211> 36
<212> PRT
<213> Homo sapiens

<400> 58
Ser Asp Ala Glu Gly Thr Ala Val Ala Pro Pro Thr Val Thr Pro Val
1 5 10 15
Pro Ser Leu Glu Ala Pro Ser Glu Gln Ala Pro Thr Glu Gln Arg Pro
20 25 30
Gly Val Gln Glu
35

<210> 59
<211> 36
<212> PRT
<213> Homo sapiens

<400> 59
Ser Asp Ala Glu Gly Thr Ala Val Ala Pro Pro Thr Ile Thr Pro Ile
1 5 10 15
Pro Ser Leu Glu Ala Pro Ser Glu Gln Ala Pro Thr Glu Gln Arg Pro
20 25 30
Gly Val Gln Glu
35

<210> 60
<211> 36
<212> PRT
<213> Homo sapiens

<400> 60
Ser Asp Ala Glu Trp Thr Ala Phe Val Pro Pro Asn Val Ile Leu Ala
1 5 10 15
Pro Ser Leu Glu Ala Phe Phe Glu Gln Ala Leu Thr Glu Glu Thr Pro
20 25 30
Gly Val Gln Asp
35

<210> 61
<211> 36
<212> PRT
<213> Homo sapiens

<400> 61

Leu Val Thr Glu Ser Ser Val Leu Ala Thr Leu Thr Val Val Pro Asp
1 5 10 15

Pro Ser Thr Glu Ala Ser Ser Glu Glu Ala Pro Thr Glu Gln Ser Pro
20 25 30

Gly Val Gln Asp
35

<210> 62
<211> 36
<212> PRT
<213> Homo sapiens

<400> 62
Pro Val Met Glu Ser Thr Leu Leu Thr Thr Pro Thr Val Val Pro Val
1 5 10 15

Pro Ser Thr Glu Leu Pro Ser Glu Glu Ala Pro Thr Glu Asn Ser Thr
20 25 30

Gly Val Gln Asp
35

<210> 63
<211> 36
<212> PRT
<213> Homo sapiens

<400> 63
Pro Val Thr Glu Ser Ser Val Leu Thr Thr Pro Thr Val Ala Pro Val
1 5 10 15

Pro Ser Thr Glu Ala Pro Ser Glu Gln Ala Pro Pro Glu Lys Ser Pro
20 25 30

Val Val Gln Asp
35

<210> 64
<212> PRT
<213> Homo sapiens

<400> 64

<210> 65
<212> PRT
<213> Homo sapiens

<400> 65

<210> 66
<211> 37
<212> PRT
<213> Homo sapiens

<400> 66
Pro Lys Asp Ala Thr Arg Phe Lys His Leu Arg Lys Tyr Thr Tyr Asn
1 5 10 15
Tyr Glu Ala Glu Ser Ser Ser Gly Val Pro Gly Thr Ala Asp Ser Arg
20 25 30
Ser Ala Thr Arg Ile
35

<210> 67
<211> 34
<212> PRT
<213> Homo sapiens

<400> 67
Pro Lys Asp Ala Ser Gln Arg Arg Arg Ser Leu Glu Pro Ala Glu Asn
1 5 10 15
Val His Gly Ala Gly Gly Gly Ala Phe Pro Ala Ser Gln Thr Pro Ser
20 25 30
Lys Pro

<210> 68
<211> 32
<212> PRT
<213> Homo sapiens

<400> 68
Asp Lys Glu Ala Thr Lys Leu Thr Glu Glu Arg Asp Gly Ser Leu Asn
1 5 10 15
Gln Ser Ser Gly Tyr Arg Tyr Gly Thr Asp Pro Thr Pro Gln His Tyr
20 25 30

<210> 69
<211> 39
<212> PRT
<213> Homo sapiens

<400> 69
Ile Gln Asn Tyr His Thr Phe Leu Ile Tyr Ile Thr Glu Leu Leu Lys
1 5 10 15

Lys Leu Gln Ser Thr Thr Val Met Asn Pro Tyr Met Lys Leu Ala Pro
20 25 30

Gly Glu Leu Thr Ile Ile Leu
35

<210> 70

<211> 31

<212> PRT

<213> Homo sapiens

<400> 70

Pro Glu Glu Arg Pro Thr Phe Glu Tyr Leu Gln Ala Phe Leu Glu Asp
1 5 10 15

Tyr Phe Thr Ser Thr Glu Pro Gln Tyr Gln Pro Gly Glu Asn Leu
20 25 30

<210> 71

<211> 31

<212> PRT

<213> Homo sapiens

<400> 71

Pro Glu Glu Arg Pro Thr Phe Glu Tyr Leu Gln Ser Phe Leu Glu Asp
1 5 10 15

Tyr Phe Thr Ala Thr Glu Pro Gln Tyr Gln Pro Gly Glu Asn Leu
20 25 30

<210> 72

<211> 29

<212> PRT

<213> Homo sapiens

<400> 72

Pro Glu Glu Arg Pro Thr Phe Glu Tyr Ile Gln Ser Val Leu Asp Asp
1 5 10 15

Phe Tyr Thr Ala Thr Glu Ser Gln Tyr Gln Gln Gln Pro
20 25

<210> 73

<211> 29

<212> PRT

<213> Homo sapiens

<400> 73

Ala Glu Glu Arg Pro Thr Phe Asp Tyr Leu Gln Ser Val Leu Asp Asp
1 5 10 15

Phe Tyr Thr Ala Thr Glu Gly Gln Tyr Gln Gln Gln Pro

20

25

<210> 74
<211> 29
<212> PRT
<213> Homo sapiens

<400> 74
Pro Glu Asp Arg Pro Thr Phe Asp Tyr Leu Arg Ser Val Leu Glu Asp
1 5 10 15
Phe Phe Thr Ala Thr Glu Gly Gln Tyr Gln Pro Gln Pro
20 25

<210> 75
<211> 6
<212> PRT
<213> Homo sapiens

<220>
<221> MOD_RES
<222> (2)..(5)
<223> x = anything

<400> 75
Pro Xaa Xaa Xaa Xaa Pro
1 5

<210> 76
<211> 40
<212> PRT
<213> Homo sapiens

<400> 76
Pro Asp Phe Arg Leu Pro Glu Ile Ala Ile Pro Glu Phe Ile Ile Pro
1 5 10 15
Thr Leu Asn Leu Asn Asp Phe Gln Val Pro Asp Leu His Ile Pro Glu
20 25 30
Phe Gln Leu Pro His Ile Ser His
35 40

<210> 77
<211> 22
<212> PRT
<213> Homo sapiens

<400> 77
Pro Gln Asn Ala Lys Leu Lys Ile Lys Arg Pro Val Lys Val Gln Pro
1 5 10 15
Ile Ala Arg Val Trp Tyr

20

<210> 78
<211> 22
<212> PRT
<213> Homo sapiens

<400> 78
Pro Asp Phe Arg Leu Pro Glu Ile Ala Ile Pro Glu Phe Ile Ile Pro
1 5 10 15
Thr Leu Asn Leu Asn Asp
20

<210> 79
<211> 22
<212> PRT
<213> Homo sapiens

<400> 79
Asn Asp Phe Gln Val Pro Asp Leu His Ile Pro Glu Phe Gln Leu Pro
1 5 10 15
His Ile Ser His Thr Ile
20

<210> 80
<211> 22
<212> PRT
<213> Homo sapiens

<400> 80
Pro Ser Leu Glu Leu Pro Val Leu His Val Pro Arg Asn Leu Lys Leu
1 5 10 15
Ser Leu Pro His Phe Lys
20

<210> 81
<212> PRT
<213> Homo sapiens

<400> 81

<210> 82
<211> 383
<212> PRT
<213> Homo sapiens

<400> 82
Val Ser Leu Val Cys Pro Lys Asp Ala Thr Arg Phe Lys His Leu Arg

1	5	10	15
Lys Tyr Thr Tyr Asn Tyr Glu Ala Glu Ser Ser Ser Gly Val Pro Gly	20	25	30
Thr Ala Asp Ser Arg Ser Ala Thr Arg Ile Asn Cys Lys Val Glu Leu	35	40	45
Glu Val Pro Gln Leu Cys Ser Phe Ile Leu Lys Thr Ser Gln Cys Thr	50	55	60
Leu Lys Glu Val Tyr Gly Phe Asn Pro Glu Gly Lys Ala Leu Leu Lys	65	70	75
Lys Thr Lys Asn Ser Glu Glu Phe Ala Ala Ala Met Ser Arg Tyr Glu	85	90	95
Leu Lys Leu Ala Ile Pro Glu Gly Lys Gln Val Phe Leu Tyr Pro Glu	100	105	110
Lys Asp Glu Pro Thr Tyr Ile Leu Asn Ile Lys Arg Gly Ile Ile Ser	115	120	125
Ala Leu Leu Val Pro Pro Glu Thr Glu Glu Ala Lys Gln Val Leu Phe	130	135	140
Leu Asp Thr Val Tyr Gly Asn Cys Ser Thr His Phe Thr Val Lys Thr	145	150	155
Arg Lys Gly Asn Val Ala Thr Glu Ile Ser Thr Glu Arg Asp Leu Gly	165	170	175
Gln Cys Asp Arg Phe Lys Pro Ile Arg Thr Gly Ile Ser Pro Leu Ala	180	185	190
Leu Ile Lys Gly Met Thr Arg Pro Leu Ser Thr Leu Ile Ser Ser Ser	195	200	205
Gln Ser Cys Gln Tyr Thr Leu Asp Ala Lys Arg Lys His Val Ala Glu	210	215	220
Ala Ile Cys Lys Glu Gln His Leu Phe Leu Pro Phe Ser Tyr Lys Asn	225	230	235
Lys Tyr Gly Met Val Ala Gln Val Thr Gln Thr Leu Lys Leu Glu Asp	245	250	255
Thr Pro Lys Ile Asn Ser Arg Phe Phe Gly Glu Gly Thr Lys Lys Met	260	265	270
Gly Leu Ala Phe Glu Ser Thr Lys Ser Thr Ser Pro Pro Lys Gln Ala	275	280	285
Glu Ala Val Leu Lys Thr Leu Gln Glu Leu Lys Lys Leu Thr Ile Ser	290	295	300
Glu Gln Asn Ile Gln Arg Ala Asn Leu Phe Asn Lys Leu Val Thr Glu			

305		310		315		320
Leu Arg Gly Leu Ser Asp Glu Ala Val Thr Ser Leu Leu Pro Gln Leu	325		330		335	
Ile Glu Val Ser Ser Pro Ile Thr Leu Gln Ala Leu Val Gln Cys Gly	340		345		350	
Gln Pro Gln Cys Ser Thr His Ile Leu Lys Arg Val His Ala Asn Pro	355		360		365	
Leu Leu Ile Asp Val Val Thr Tyr Leu Val Ala Leu Ile Pro Glu	370		375		380	

<210> 83

<211> 394

<212> PRT

<213> Homo sapiens

<400> 83

Phe Gly Leu Ser Asn Lys Ile Asn Ser Lys His Leu Arg Val Asn Gln	1	5	10	15
Asn Leu Val Tyr Glu Ser Gly Ser Leu Asn Phe Ser Lys Leu Glu Ile	20	25	30	
Gln Ser Gln Val Asp Ser Gln His Val Gly His Ser Val Leu Thr Ala	35	40	45	
Lys Gly Met Ala Leu Phe Gly Glu Gly Lys Ala Glu Phe Thr Gly Arg	50	55	60	
His Asp Ala His Leu Asn Gly Lys Val Ile Gly Thr Leu Lys Asn Ser	65	70	75	80
Leu Phe Phe Ser Ala Gln Pro Phe Glu Ile Thr Ala Ser Thr Asn Asn	85	90	95	
Glu Gly Asn Leu Lys Val Arg Phe Pro Leu Arg Leu Thr Gly Lys Ile	100	105	110	
Asp Phe Leu Asn Asn Tyr Ala Leu Phe Leu Ser Pro Ser Ala Gln Gln	115	120	125	
Ala Ser Trp Gln Val Ser Ala Arg Phe Asn Gln Tyr Lys Tyr Asn Gln	130	135	140	
Asn Phe Ser Ala Gly Asn Asn Glu Asn Ile Met Glu Ala His Val Gly	145	150	155	160
Ile Asn Gly Glu Ala Asn Leu Asp Phe Leu Asn Ile Pro Leu Thr Ile	165	170	175	
Pro Glu Met Arg Leu Pro Tyr Thr Ile Ile Thr Thr Pro Pro Leu Lys	180	185	190	

Asp Phe Ser Leu Trp Glu Lys Thr Gly Leu Lys Glu Phe Leu Lys Thr
 195 200 205
 Thr Lys Gln Ser Phe Asp Leu Ser Val Lys Ala Gln Tyr Lys Lys Asn
 210 215 220
 Lys His Arg His Ser Ile Asn Pro Leu Ala Val Leu Cys Glu Phe Ile
 225 230 235 240
 Ser Gln Ser Ile Lys Ser Phe Asp Arg His Phe Glu Lys Asn Arg Asn
 245 250 255
 Asn Ala Leu Asp Phe Val Thr Lys Ser Tyr Asn Glu Thr Lys Ile Lys
 260 265 270
 Phe Asp Lys Tyr Lys Ala Glu Lys Ser His Asp Glu Leu Pro Arg Thr
 275 280 285
 Phe Gln Ile Pro Gly Tyr Thr Val Pro Val Val Asn Val Glu Val Ser
 290 295 300
 Pro Phe Thr Ile Glu Met Ser Ala Phe Gly Tyr Val Phe Pro Lys Ala
 305 310 315 320
 Val Ser Met Pro Ser Phe Ser Ile Leu Gly Ser Asp Val Arg Val Pro
 325 330 335
 Ser Tyr Thr Leu Ile Leu Pro Ser Leu Glu Leu Pro Val Leu His Val
 340 345 350
 Pro Arg Asn Leu Lys Leu Ser Leu Pro His Phe Lys Glu Leu Cys Thr
 355 360 365
 Ile Ser His Ile Phe Ile Pro Ala Met Gly Asn Ile Thr Tyr Asp Phe
 370 375 380
 Ser Phe Lys Ser Ser Val Ile Thr Leu Asn
 385 390

<210> 84
 <211> 51
 <212> PRT
 <213> Homo sapiens

<400> 84
 Met Ala Ser Gly Arg Ala Arg Cys Thr Arg Lys Leu Arg Asn Trp Val
 1 5 10 15
 Val Glu Gln Val Glu Ser Gly Gln Phe Pro Gly Val Cys Trp Asp Asp
 20 25 30
 Thr Ala Lys Thr Met Phe Arg Ile Pro Trp Lys His Ala Gly Lys Gln
 35 40 45
 Asp Phe Arg
 50

<210> 85
<211> 48
<212> PRT
<213> Homo sapiens

<400> 85
Pro Lys Asp Ala Thr Arg Phe Lys His Leu Arg Lys Tyr Thr Tyr Asn
1 5 10 15
Tyr Glu Ala Glu Ser Ser Ser Gly Val Pro Gly Thr Ala Asp Ser Arg
20 25 30
Ser Ala Thr Arg Ile Asn Cys Lys Val Glu Leu Glu Val Leu Pro Gln
35 40 45

<210> 86
<211> 37
<212> PRT
<213> Homo sapiens

<400> 86
Pro Glu Gly Lys Ala Leu Leu Lys Lys Thr Lys Asn Ser Glu Glu Phe
1 5 10 15
Ala Ala Ala Met Ser Arg Tyr Glu Leu Lys Leu Ala Ile Pro Glu Gly
20 25 30
Lys Gln Val Phe Leu
35

<210> 87
<211> 38
<212> PRT
<213> Homo sapiens

<400> 87
Cys Ser Thr His Phe Thr Val Lys Thr Arg Lys Gly Asn Val Ala Thr
1 5 10 15
Glu Ile Ser Thr Glu Arg Asp Leu Gly Gln Cys Asp Arg Phe Lys Pro
20 25 30
Ile Arg Thr Gly Ile Ser
35

<210> 88
<211> 51
<212> PRT
<213> Homo sapiens

<400> 88

Cys Ser Thr His Ile Leu Gln Trp Leu Lys Arg Val His Ala Asn Pro
1 5 10 15

Leu Leu Ile Asp Val Val Thr Tyr Leu Val Ala Leu Ile Pro Glu Pro
20 25 30

Ser Ala Gln Gln Leu Arg Glu Ile Phe Asn Met Ala Arg Asp Gln Arg
35 40 45

Ser Arg Ala
50

<210> 89

<211> 38

<212> PRT

<213> Homo sapiens

<400> 89

His Leu Ser Cys Asp Thr Lys Glu Glu Arg Lys Ile Lys Gly Val Ile
1 5 10 15

Ser Ile Pro Arg Leu Gln Ala Glu Ala Arg Ser Glu Ile Leu Ala His
20 25 30

Trp Ser Pro Ala Lys Leu
35

<210> 90

<211> 47

<212> PRT

<213> Homo sapiens

<400> 90

Ser Val His Leu Asp Ser Lys Lys Lys Gln His Leu Phe Val Lys Glu
1 5 10 15

Val Lys Ile Asp Gly Gln Phe Arg Val Ser Ser Phe Tyr Ala Lys Gly
20 25 30

Thr Tyr Gly Leu Ser Cys Gln Arg Asp Pro Asn Thr Gly Arg Leu
35 40 45

<210> 91

<211> 40

<212> PRT

<213> Homo sapiens

<400> 91

Lys His Ile Asn Ile Asp Gln Phe Val Arg Lys Tyr Arg Ala Ala Leu
1 5 10 15

Gly Lys Leu Pro Gln Gln Ala Asn Asp Tyr Leu Ser Phe Asn Trp Glu

20 25 30

Arg Gln Val Ser His Ala Lys Glu
35 40

<210> 92
<211> 40
<212> PRT
<213> Homo sapiens

<400> 92
Lys Leu Thr Ala Leu Thr Lys Lys Tyr Arg Ile Thr Glu Asn Asp Ile
1 5 10 15
Gln Ile Ala Leu Asp Asp Ala Lys Ile Asn Phe Asn Glu Lys Leu Ser
20 25 30
Gln Leu Gln Thr Tyr Met Ile Gln
35 40

<210> 93
<211> 50
<212> PRT
<213> Homo sapiens

<400> 93
Glu Arg Ile Asn Asp Val Leu Glu His Val Lys His Phe Val Ile Asn
1 5 10 15
Leu Ile Gly Asp Phe Glu Val Ala Glu Lys Ile Asn Ala Phe Arg Ala
20 25 30
Lys Val His Glu Leu Ile Glu Arg Tyr Glu Val Asp Gln Gln Ile Gln
35 40 45
Val Leu
50

<210> 94
<211> 50
<212> PRT
<213> Homo sapiens

<400> 94
Asn Lys Phe Leu Asp Met Leu Ile Lys Lys Leu Lys Ser Phe Asp Tyr
1 5 10 15
His Gln Phe Val Asp Glu Thr Asn Asp Lys Ile Arg Glu Val Thr Gln
20 25 30
Arg Leu Asn Gly Glu Ile Gln Ala Leu Glu Leu Pro Gln Lys Ala Glu
35 40 45
Ala Leu

50

<210> 95
<211> 23
<212> PRT
<213> Homo sapiens

<400> 95
Ser Asn Lys Ile Asn Ser Lys His Leu Arg Val Asn Gln Asn Leu Val
1 5 10 15
Tyr Glu Ser Gly Ser Leu Asn
20

<210> 96
<211> 47
<212> PRT
<213> Homo sapiens

<400> 96
Phe Ser Lys Leu Glu Ile Gln Ser Gln Val Asp Ser Gln His Val Gly
1 5 10 15
His Ser Val Leu Thr Ala Lys Gly Met Ala Leu Phe Gly Glu Gly Gly
20 25 30
Lys Ala Glu Phe Thr Gly Arg His Asp Ala His Leu Asn Gly Lys
35 40 45

<210> 97
<211> 50
<212> PRT
<213> Homo sapiens

<400> 97
Val Lys Ala Gln Tyr Lys Lys Asn Lys His Arg His Ser Ile Thr Asn
1 5 10 15
Pro Leu Ala Val Leu Cys Glu Phe Ile Ser Gln Ser Ile Lys Ser Phe
20 25 30
Asp Arg His Phe Glu Lys Asn Arg Asn Asn Ala Leu Asp Phe Val Thr
35 40 45
Lys Ser
50

<210> 98
<211> 51
<212> PRT
<213> Homo sapiens

<400> 98

Lys Leu Glu Gly Thr Thr Arg Leu Thr Arg Lys Arg Gly Leu Lys Leu
1 5 10 15

Ala Thr Ala Leu Ser Leu Ser Asn Lys Phe Val Glu Gly Ser His Asn
20 25 30

Ser Thr Val Ser Leu Thr Thr Lys Asn Met Glu Val Ser Val Ala Lys
35 40 45

Thr Thr Lys
50

<210> 99
<211> 51
<212> PRT
<213> Homo sapiens

<400> 99
Lys Leu Asp Val Thr Thr Ser Ile Gly Arg Arg Gln His Leu Arg Val
1 5 10 15

Ser Thr Ala Phe Val Tyr Thr Lys Asn Pro Asn Gly Tyr Ser Phe Ser
20 25 30

Ile Pro Val Lys Val Leu Ala Asp Lys Phe Ile Thr Pro Gly Leu Lys
35 40 45

Leu Asn Asp
50

<210> 100
<211> 49
<212> PRT
<213> Homo sapiens

<400> 100
Phe Arg Glu Ile Gln Ile Tyr Lys Lys Leu Arg Thr Ser Ser Phe Ala
1 5 10 15

Leu Asn Leu Pro Thr Leu Pro Glu Val Lys Phe Pro Glu Val Asp Val
20 25 30

Leu Thr Lys Tyr Ser Gln Pro Glu Asp Ser Leu Ile Pro Phe Phe Glu
35 40 45

Ile

<210> 101
<211> 48
<212> PRT
<213> Homo sapiens

<400> 101

Leu His Leu Arg Tyr Gln Lys Asp Lys Lys Gly Ile Ser Thr Ser Ala
1 5 10 15

Ala Ser Pro Ala Val Gly Thr Val Gly Met Asp Met Asp Glu Asp Asp
20 25 30

Asp Phe Ser Lys Trp Asn Phe Tyr Tyr Ser Pro Gln Ser Ser Pro Asp
35 40 45

<210> 102
<211> 48
<212> PRT
<213> Homo sapiens

<400> 102
Leu Arg Glu Val Ser Ser Lys Leu Arg Arg Asn Leu Gln Asn Asn Ala
1 5 10 15

Glu Trp Val Tyr Gln Gly Ala Ile Arg Gln Ile Asp Asp Ile Asp Val
20 25 30

Arg Phe Gln Lys Ala Ala Ser Gly Thr Thr Gly Thr Tyr Gln Glu Trp
35 40 45

<210> 103
<211> 50
<212> PRT
<213> Homo sapiens

<400> 103
Arg Val Thr Gln Lys Phe His Met Lys Val Lys His Leu Ile Asp Ser
1 5 10 15

Leu Ile Asp Phe Leu Asn Phe Pro Arg Phe Gln Phe Pro Gly Lys Pro
20 25 30

Gly Ile Tyr Thr Arg Glu Glu Leu Cys Thr Met Phe Ile Arg Glu Val
35 40 45

Gly Thr
50

<210> 104
<212> PRT
<213> Homo sapiens

<400> 104

<210> 105
<211> 48
<212> PRT
<213> Homo sapiens

<400> 105
Glu His Val Lys His Phe Val Ile Asn Leu Ile Gly Asp Phe Glu Val
1 5 10 15
Ala Glu Lys Ile Asn Ala Phe Arg Ala Lys Val His Glu Leu Ile Glu
20 25 30
Arg Tyr Glu Val Asp Gln Gln Ile Gln Val Leu Met Asp Lys Leu Val
35 40 45

<210> 106
<211> 52
<212> PRT
<213> Homo sapiens

<400> 106
Val Arg Lys Tyr Arg Ala Ala Leu Gly Lys Leu Pro Gln Gln Ala Asn
1 5 10 15
Asp Tyr Leu Asn Ser Phe Asn Trp Glu Arg Gln Val Ser His Ala Lys
20 25 30
Glu Lys Leu Thr Ala Leu Thr Lys Lys Tyr Arg Ile Thr Glu Asn Asp
35 40 45
Ile Gln Ile Ala
50

<210> 107
<211> 57
<212> PRT
<213> Homo sapiens

<400> 107
Tyr Ile Lys Asp Ser Tyr Asp Leu His Asp Leu Lys Ile Ala Ile Ala
1 5 10 15
Asn Ile Ile Asp Glu Ile Ile Glu Lys Leu Lys Ser Leu Asp Glu His
20 25 30
Tyr His Ile Arg Val Asn Leu Val Lys Thr Ile His Asp Leu His Leu
35 40 45
Phe Ile Glu Asn Ile Asp Phe Asn Lys
50 55

<210> 108
<211> 33
<212> PRT
<213> Homo sapiens

<400> 108
Lys Ile Thr Leu Ile Ile Asn Trp Leu Gln Glu Ala Leu Ser Ser Ala
1 5 10 15
Ser Leu Ala His Met Lys Ala Lys Phe Arg Glu Thr Leu Glu Asp Thr
20 25 30

Arg

<210> 109
<211> 32
<212> PRT
<213> Homo sapiens

<400> 109
Thr Asp His Phe Ser Leu Arg Ala Arg Tyr His Met Lys Ala Asp Ser
1 5 10 15
Val Val Asp Leu Ser Tyr Asn Val Gln Gly Ser Gly Glu Thr Thr Tyr
20 25 30

<210> 110
<211> 20
<212> PRT
<213> Homo sapiens

<400> 110
Lys Leu Thr Thr Asn Gly Arg Phe Arg Glu His Asn Ala Lys Phe Ser
1 5 10 15
Leu Asp Gly Lys
20

<210> 111
<211> 52
<212> PRT
<213> Homo sapiens

<400> 111
Asp Thr Lys Tyr Gln Ile Arg Ile Gln Ile Gln Glu Lys Leu Gln Gln
1 5 10 15
Leu Lys Arg His Ile Gln Asn Ile Asp Ile Gln His Leu Ala Gly Lys

20 25 30
 Leu Lys Gln His Ile Glu Ala Ile Asp Val Arg Val Leu Leu Asp Gln
 35 40 45
 Leu Gly Thr Thr
 50

<210> 112
 <211> 45
 <212> PRT
 <213> Homo sapiens

<400> 112
 Phe His Asp Phe Pro Asp Leu Gly Gln Glu Val Ala Leu Asn Ala Asn
 1 5 10 15
 Thr Lys Asn Gln Lys Ile Arg Trp Lys Asn Glu Val Arg Ile His Ser
 20 25 30

Gly Ser Phe Gln Ser Gln Val Glu Leu Ser Asn Asp Gln
 35 40 45

<210> 113
 <211> 34
 <212> PRT
 <213> Homo sapiens

<400> 113
 Lys Asp Asn Val Phe Asp Gly Leu Val Arg Val Thr Gln Lys Phe His
 1 5 10 15
 Met Lys Val Lys His Leu Ile Asp Ser Leu Ile Asp Phe Leu Asn Phe
 20 25 30

Pro Arg

<210> 114
 <211> 35
 <212> PRT
 <213> Homo sapiens

<400> 114
 His Arg Asn Ile Gln Glu Tyr Leu Ser Ile Leu Thr Asp Pro Asp Gly
 1 5 10 15
 Lys Gly Lys Glu Lys Ile Ala Glu Leu Ser Ala Thr Ala Gln Glu Ile
 20 25 30

Ile Lys Ser
 35

<210> 115
<212> PRT
<213> Homo sapiens

<400> 115

<210> 116
<211> 174
<212> PRT
<213> Homo sapiens

<400> 116
Gly Pro Leu Pro Thr Leu Val Ser Gly Gly Thr Ile Leu Ala Thr Val
1 5 10 15
Pro Leu Val Val Asp Ala Glu Lys Leu Pro Ile Asn Arg Leu Ala Ala
20 25 30
Gly Ser Lys Ala Pro Ala Ser Ala Gln Ser Arg Gly Glu Lys Arg Thr
35 40 45
Ala His Asn Ala Ile Glu Lys Arg Tyr Arg Ser Ser Ile Asn Asp Lys
50 55 60
Ile Ile Glu Leu Lys Asp Leu Val Val Gly Thr Glu Ala Lys Leu Asn
65 70 75 80
Lys Ser Ala Val Leu Arg Lys Ala Ile Asp Tyr Ile Arg Phe Leu Gln
85 90 95
His Ser Asn Gln Lys Leu Lys Gln Glu Asn Leu Ser Leu Arg Thr Ala
100 105 110
Val His Lys Ser Lys Ser Leu Lys Asp Leu Val Ser Ala Cys Gly Ser
115 120 125
Gly Gly Asn Thr Asp Val Leu Met Glu Gly Val Lys Thr Glu Val Glu
130 135 140
Asp Thr Leu Thr Pro Pro Pro Ser Asp Ala Gly Ser Pro Phe Gln Ser
145 150 155 160
Ser Pro Leu Ser Leu Gly Ser Arg Gly Ser Gly Ser Gly Gly
165 170

<210> 117
<211> 172
<212> PRT
<213> Homo sapiens

<400> 117
Gln Val Pro Thr Leu Val Gly Ser Ser Gly Thr Ile Leu Thr Thr Met
1 5 10 15

Pro Val Met Met Gly Gln Glu Lys Val Pro Ile Lys Gln Val Pro Gly
 20 25 30
 Gly Val Lys Gln Leu Glu Pro Pro Lys Glu Gly Glu Arg Arg Thr Thr
 35 40 45
 His Asn Ile Ile Glu Lys Arg Tyr Arg Ser Ser Ile Asn Asp Lys Ile
 50 55 60
 Ile Glu Leu Lys Asp Leu Val Met Gly Thr Asp Ala Lys Met His Lys
 65 70 75 80
 Ser Gly Val Leu Arg Lys Ala Ile Asp Tyr Ile Lys Tyr Leu Gln Gln
 85 90 95
 Val Asn His Lys Leu Arg Gln Glu Asn Met Val Leu Lys Leu Ala Asn
 100 105 110
 Gln Lys Asn Lys Leu Leu Lys Gly Ile Asp Leu Gly Ser Leu Val Asp
 115 120 125
 Asn Glu Val Asp Leu Lys Ile Glu Asp Phe Asn Gln Asn Val Leu Leu
 130 135 140
 Met Ser Pro Pro Ala Ser Asp Ser Gly Ser Gln Ala Gly Phe Ser Pro
 145 150 155 160
 Tyr Ser Ile Asp Ser Glu Pro Gly Ser Pro Leu Leu
 165 170

<210> 118
 <211> 173
 <212> PRT
 <213> Homo sapiens

<400> 118
 Gly Pro Leu Gln Thr Leu Val Ser Gly Gly Thr Ile Leu Ala Thr Val
 1 5 10 15
 Pro Leu Val Val Asp Thr Asp Lys Leu Pro Ile His Arg Leu Ala Ala
 20 25 30
 Gly Gly Lys Ala Leu Gly Ser Ala Gln Ser Arg Gly Glu Lys Arg Thr
 35 40 45
 Ala His Asn Ala Ile Glu Lys Arg Tyr Arg Ser Ser Ile Asn Asp Lys
 50 55 60
 Ile Val Glu Leu Lys Asp Leu Val Val Gly Thr Glu Ala Lys Leu Asn
 65 70 75 80
 Lys Ser Ala Val Leu Arg Lys Ala Ile Asp Tyr Ile Arg Phe Leu Gln
 85 90 95
 His Ser Asn Gln Lys Leu Lys Gln Glu Asn Leu Thr Leu Arg Ser Ala
 100 105 110

His Lys Ser Lys Ser Leu Lys Asp Leu Val Ser Ala Cys Gly Ser Gly
 115 120 125
 Gly Gly Thr Asp Val Ser Met Glu Gly Met Lys Pro Glu Val Val Glu
 130 135 140
 Thr Leu Thr Pro Pro Pro Ser Asp Ala Gly Ser Pro Ser Gln Ser Ser
 145 150 155 160
 Pro Leu Ser Leu Gly Ser Arg Gly Ser Ser Ser Gly Gly
 165 170

<210> 119
 <211> 243
 <212> PRT
 <213> Homo sapiens

<400> 119
 Asp Glu Pro Pro Gln Ser Pro Trp Asp Arg Val Lys Asp Leu Ala Thr
 1 5 10 15
 Val Tyr Val Asp Val Leu Lys Asp Ser Gly Arg Asp Tyr Val Ser Gln
 20 25 30
 Phe Glu Gly Ser Ala Leu Gly Lys Gln Leu Asn Leu Lys Leu Leu Asp
 35 40 45
 Asn Trp Asp Ser Val Thr Ser Thr Phe Ser Lys Leu Arg Glu Gln Leu
 50 55 60
 Gly Pro Val Thr Gln Glu Phe Trp Asp Asn Leu Glu Lys Glu Thr Glu
 65 70 75 80
 Gly Leu Arg Gln Glu Met Ser Lys Asp Leu Glu Glu Val Lys Ala Lys
 85 90 95
 Val Gln Pro Tyr Leu Asp Asp Phe Gln Lys Lys Trp Gln Glu Glu Met
 100 105 110
 Glu Leu Tyr Arg Gln Lys Val Glu Pro Leu Arg Ala Glu Leu Gln Glu
 115 120 125
 Gly Ala Arg Gln Lys Leu His Glu Leu Gln Glu Lys Leu Ser Pro Leu
 130 135 140
 Gly Glu Glu Met Arg Asp Arg Ala Arg Ala His Val Asp Ala Leu Arg
 145 150 155 160
 Thr His Leu Ala Pro Tyr Ser Asp Glu Leu Arg Gln Arg Leu Ala Ala
 165 170 175
 Arg Leu Glu Ala Leu Lys Glu Asn Gly Gly Ala Arg Leu Ala Glu Tyr
 180 185 190
 His Ala Lys Ala Thr Glu His Leu Ser Thr Leu Ser Glu Lys Ala Lys

195 200 205

Pro Ala Leu Glu Asp Leu Arg Gln Gly Leu Leu Pro Val Leu Glu Ser
 210 215 220

Phe Lys Val Ser Phe Leu Ser Ala Leu Glu Glu Tyr Thr Lys Lys Leu
 225 230 235 240

Asn Thr Gln

<210> 120
 <212> PRT
 <213> Homo sapiens

<400> 120

<210> 121
 <211> 77
 <212> PRT
 <213> Homo sapiens

<400> 121
 Gln Ala Lys Glu Pro Cys Val Glu Ser Leu Val Ser Gln Tyr Phe Gln
 1 5 10 15

Thr Val Thr Asp Tyr Gly Lys Asp Leu Met Glu Lys Val Lys Ser Pro
 20 25 30

Glu Leu Gln Ala Glu Ala Lys Ser Tyr Phe Glu Lys Ser Lys Glu Gln
 35 40 45

Leu Thr Pro Leu Ile Lys Lys Ala Gly Thr Glu Leu Val Asn Phe Leu
 50 55 60

Ser Tyr Phe Val Glu Leu Gly Thr Gln Pro Ala Thr Gln
 65 70 75

<210> 122
 <211> 71
 <212> PRT
 <213> Homo sapiens

<400> 122
 Glu Ala Lys Leu Asn Lys Ser Ala Val Leu Arg Lys Ala Ile Asp Tyr
 1 5 10 15

Ile Arg Phe Leu Gln His Ser Asn Gln Lys Leu Lys Gln Glu Asn Leu
 20 25 30

Ser Leu Arg Thr Ala Val His Lys Ser Lys Ser Leu Lys Asp Leu Val
 35 40 45

Ser Ala Cys Gly Ser Gly Gly Asn Thr Asp Val Leu Met Glu Gly Val
50 55 60

Lys Thr Glu Val Glu Asp Thr
65 70

<210> 123

<211> 397

<212> PRT

<213> Homo sapiens

<400> 123

Gln Lys Ser Glu Leu Thr Gln Gln Leu Asn Ala Leu Phe Gln Asp Lys
1 5 10 15

Leu Gly Glu Val Asn Thr Tyr Ala Gly Asp Leu Gln Lys Lys Leu Val
20 25 30

Pro Phe Ala Thr Glu Leu His Glu Arg Leu Ala Lys Asp Ser Glu Lys
35 40 45

Leu Lys Glu Glu Ile Gly Lys Glu Leu Glu Glu Leu Arg Ala Arg Leu
50 55 60

Leu Pro His Ala Asn Glu Val Ser Gln Lys Ile Gly Asp Asn Leu Arg
65 70 75 80

Glu Leu Gln Gln Arg Leu Glu Pro Tyr Ala Asp Gln Leu Arg Thr Gln
85 90 95

Val Asn Thr Gln Ala Glu Gln Leu Arg Arg Gln Leu Asp Pro Leu Ala
100 105 110

Gln Arg Met Glu Arg Val Leu Arg Glu Asn Ala Asp Ser Leu Gln Ala
115 120 125

Ser Leu Arg Pro His Ala Asp Glu Leu Lys Ala Lys Ile Asp Gln Asn
130 135 140

Val Glu Glu Leu Lys Gly Arg Leu Thr Pro Tyr Ala Asp Glu Phe Lys
145 150 155 160

Val Lys Ile Asp Gln Thr Val Glu Glu Leu Arg Arg Ser Leu Ala Pro
165 170 175

Tyr Ala Gln Asp Thr Gln Glu Lys Leu Asn His Gln Leu Glu Gly Leu
180 185 190

Thr Phe Gln Met Lys Lys Asn Ala Glu Glu Leu Lys Ala Arg Ile Ser
195 200 205

Ala Ser Ala Glu Ile Asp Gln Thr Val Glu Glu Leu Arg Arg Ser Leu
210 215 220

Ala Pro Tyr Ala Gln Asp Thr Gln Glu Lys Leu Asn His Gln Leu Glu
225 230 235 240

Gly Leu Thr Phe Gln Met Lys Lys Asn Ala Glu Glu Leu Lys Ala Arg
 245 250 255
 Ile Ser Ala Ser Ala Glu Glu Leu Arg Gln Arg Leu Ala Pro Leu Ala
 260 265 270
 Glu Asp Val Arg Gly Asn Leu Lys Gly Asn Thr Glu Gly Leu Gln Lys
 275 280 285
 Ser Leu Ala Glu Leu Gly Gly His Leu Asp Gln Gln Val Glu Glu Phe
 290 295 300
 Arg Arg Arg Val Glu Pro Tyr Gly Glu Asn Phe Asn Lys Ala Leu Val
 305 310 315 320
 Gln Gln Met Glu Gln Leu Arg Gln Lys Leu Gly Pro His Ala Gly Asp
 325 330 335
 Val Glu Gly His Leu Ser Phe Leu Glu Lys Asp Leu Arg Asp Lys Val
 340 345 350
 Asn Ser Phe Phe Ser Thr Phe Lys Glu Lys Glu Ser Gln Asp Lys Thr
 355 360 365
 Leu Ser Leu Pro Glu Leu Glu Gln Gln Gln Glu Gln Gln Glu Gln
 370 375 380
 Gln Gln Glu Gln Val Gln Met Leu Ala Pro Leu Glu Ser
 385 390 395

<210> 124
 <212> PRT
 <213> Homo sapiens

<400> 124

<210> 125
 <212> PRT
 <213> Homo sapiens

<400> 125

<210> 126
 <211> 135
 <212> PRT
 <213> Homo sapiens

<400> 126
 Glu Lys Leu Pro Ile Asn Arg Leu Ala Ala Gly Ser Lys Ala Pro Ala
 1 5 10 15

Ser Ala Gln Ser Arg Gly Glu Lys Arg Thr Ala His Asn Ala Ile Glu
 20 25 30
 Lys Arg Tyr Arg Ser Ser Ile Asn Asp Lys Ile Ile Glu Leu Lys Asp
 35 40 45
 Leu Val Val Gly Thr Glu Ala Lys Leu Asn Lys Ser Tyr Ile Arg Phe
 50 55 60
 Leu Gln His Ser Asn Gln Lys Leu Lys Gln Glu Asn Leu Ser Leu Arg
 65 70 75 80
 Thr Ala Val His Lys Ser Lys Ser Leu Lys Asp Leu Val Ser Ala Cys
 85 90 95
 Gly Ser Gly Gly Asn Thr Asp Val Leu Met Glu Gly Val Lys Thr Glu
 100 105 110
 Val Glu Asp Lys Ala Lys Pro Glu Gln Arg Pro Ser Leu His Ser Arg
 115 120 125
 Gly Met Leu Asp Arg Ser Arg
 130 135

<210> 127
 <211> 26
 <212> PRT
 <213> Homo sapiens

<400> 127
 Arg Arg His Cys Pro Leu Lys Asn Pro Thr Phe Leu Asp Tyr Val Arg
 1 5 10 15
 Pro Arg Ser Trp Thr Cys Arg Tyr Val Phe
 20 25

<210> 128
 <211> 25
 <212> PRT
 <213> Homo sapiens

<400> 128
 Arg Arg Arg Ala Gly Pro Gly Gly Lys Gly Gly Ala Val Ala Glu Leu
 1 5 10 15
 Glu Pro Arg Pro Thr Arg Arg Glu His
 20 25

<210> 129
 <211> 114
 <212> PRT
 <213> Homo sapiens

<400> 129

Ala Met Leu Gly Gln Ser Thr Glu Glu Leu Arg Val Arg Leu Ala Ser
 1 5 10 15
 His Leu Arg Lys Leu Arg Lys Arg Leu Leu Arg Asp Ala Asp Asp Leu
 20 25 30
 Gln Lys Arg Leu Ala Val Tyr Gln Ala Gly Ala Arg Glu Gly Ala Glu
 35 40 45
 Arg Gly Leu Ser Ala Ile Arg Glu Arg Leu Gly Pro Leu Val Glu Gln
 50 55 60
 Gly Arg Val Arg Ala Ala Thr Val Gly Ser Leu Ala Gly Gln Pro Leu
 65 70 75 80
 Gln Glu Arg Ala Gln Ala Trp Gly Glu Arg Leu Arg Ala Arg Met Glu
 85 90 95
 Glu Met Gly Ser Arg Thr Arg Asp Arg Leu Asp Glu Val Lys Glu Gln
 100 105 110

Val Ala

<210> 130
 <211> 107
 <212> PRT
 <213> Homo sapiens

<400> 130
 Lys Leu Pro Ile Asn Arg Leu Ala Ala Gly Ser Lys Ala Pro Ala Ser
 1 5 10 15
 Ala Gln Ser Arg Gly Glu Lys Arg Thr Ala His Asn Ala Ile Glu Lys
 20 25 30
 Arg Tyr Arg Ser Ser Ile Asn Asp Lys Ile Ile Glu Leu Lys Asp Leu
 35 40 45
 Val Val Gly Thr Glu Ala Lys Leu Asn Lys Ser Ala Val Leu Arg Lys
 50 55 60
 Ala Ile Asp Tyr Ile Arg Phe Leu Gln His Ser Asn Gln Lys Leu Lys
 65 70 75 80
 Gln Glu Asn Leu Ser Leu Arg Thr Ala Val His Lys Ser Lys Ser Leu
 85 90 95
 Lys Asp Leu Val Ser Ala Cys Gly Ser Gly Gly
 100 105

<210> 131
 <211> 42
 <212> PRT
 <213> Homo sapiens

<400> 131

Thr Gln Gln Pro Gln Gln Asp Glu Met Pro Ser Pro Thr Phe Leu Thr
1 5 10 15

Gln Val Lys Glu Ser Leu Ser Ser Tyr Trp Glu Ser Ala Lys Thr Ala
20 25 30

Ala Gln Asn Leu Tyr Glu Lys Thr Tyr Leu
35 40

<210> 132

<211> 45

<212> PRT

<213> Homo sapiens

<400> 132

Ser Gln Ile Gln Gln Val Pro Val Leu Leu Gln Pro His Phe Ile Lys
1 5 10 15

Ala Asp Ser Leu Leu Leu Thr Ala Met Lys Thr Asp Gly Ala Thr Val
20 25 30

Lys Ala Ala Gly Leu Ser Pro Leu Val Ser Gly Thr Thr
35 40 45

<210> 133

<211> 45

<212> PRT

<213> Homo sapiens

<400> 133

Ser Leu Leu Ser Phe Met Gln Gly Tyr Met Lys His Ala Thr Lys Thr
1 5 10 15

Ala Lys Asp Ala Leu Ser Ser Val Gln Glu Ser Gln Val Ala Gln Gln
20 25 30

Ala Arg Gly Trp Val Thr Asp Gly Phe Ser Ser Leu Lys
35 40 45

<210> 134

<211> 47

<212> PRT

<213> Homo sapiens

<400> 134

Ala Pro Ala Ser Ala Gln Ser Arg Gly Glu Lys Arg Thr Ala His Asn
1 5 10 15

Ala Ile Glu Lys Arg Tyr Arg Ser Ser Ile Asn Asp Lys Ile Ile Glu
20 25 30

Leu Lys Asp Leu Val Val Gly Thr Glu Ala Lys Leu Asn Lys Ser

35

40

45

<210> 135
<211> 28
<212> PRT
<213> Homo sapiens

<400> 135
Asp Tyr Trp Ser Thr Val Lys Asp Lys Phe Ser Glu Phe Trp Asp Leu
1 5 10 15
Asp Pro Glu Val Arg Pro Thr Ser Ala Val Ala Ala
20 25

<210> 136
<211> 32
<212> PRT
<213> Homo sapiens

<400> 136
Glu Ile Tyr Val Ala Ala Ala Leu Arg Val Lys Thr Ser Leu Pro Arg
1 5 10 15
Ala Leu His Phe Leu Thr Arg Phe Phe Leu Ser Ser Ala Arg Gln Ala
20 25 30

<210> 137
<211> 5
<212> PRT
<213> Homo sapiens

<400> 137
Glu Lys Ile Pro Thr
1 5

<210> 138
<211> 5
<212> PRT
<213> Homo sapiens

<400> 138
Glu Lys Leu Pro Ile
1 5

<210> 139
<211> 29
<212> PRT
<213> Homo sapiens

<400> 139

Glu Asn Gly Arg Cys Ile Gln Ala Asn Tyr Ser Leu Met Glu Asn Gly
1 5 10 15

Lys Ile Lys Val Leu Asn Gln Glu Leu Arg Ala Asp Gly
20 25

<210> 140

<211> 31

<212> PRT

<213> Homo sapiens

<400> 140

Ala Val Leu Arg Lys Ala Ile Asp Tyr Ile Arg Phe Leu Gln His Ser
1 5 10 15

Asn Gln Lys Leu Lys Gln Glu Asn Leu Ser Leu Arg Thr Ala Val
20 25 30

<210> 141

<211> 32

<212> PRT

<213> Homo sapiens

<400> 141

Met Lys Gln Leu Glu Asp Lys Val Glu Glu Leu Leu Ser Lys Asn Tyr
1 5 10 15

His Leu Glu Asn Glu Val Ala Arg Leu Lys Lys Leu Val Gly Glu Arg
20 25 30

<210> 142

<211> 32

<212> PRT

<213> Homo sapiens

<400> 142

Lys His Glu Ile Gln Glu Met Phe Asp Gln Leu Arg Ala Lys Glu Lys
1 5 10 15

Glu Leu Arg Thr Trp Glu Glu Glu Leu Thr Arg Ala Ala Leu Gln Gln
20 25 30

<210> 143

<211> 32

<212> PRT

<213> Homo sapiens

<400> 143

Glu Glu Leu Leu Arg Arg Arg Glu Gln Glu Leu Ala Glu Arg Glu Ile
1 5 10 15

Asp Ile Leu Glu Arg Glu Leu Asn Ile Ile Ile His Gln Leu Cys Gln
20 25 30

<210> 144

<211> 32

<212> PRT

<213> Homo sapiens

<400> 144

Arg Ile Gln Ile Gln Glu Lys Leu Gln Gln Leu Lys Arg His Ile Gln
1 5 10 15

Asn Ile Asp Ile Gln His Leu Ala Gly Lys Leu Lys Gln His Ile Glu
20 25 30

<210> 145

<211> 35

<212> PRT

<213> Homo sapiens

<400> 145

Val Leu Gln Gln Val Lys Ile Lys Asp Tyr Phe Glu Lys Leu Val Gly
1 5 10 15

Phe Ile Asp Asp Ala Val Lys Lys Leu Asn Glu Leu Ser Phe Lys Thr
20 25 30

Phe Ile Glu
35

<210> 146

<211> 31

<212> PRT

<213> Homo sapiens

<400> 146

Glu Leu Ser Phe Lys Thr Phe Ile Glu Asp Val Asn Lys Phe Leu Asp
1 5 10 15

Met Leu Ile Lys Lys Leu Lys Ser Phe Asp Tyr His Gln Phe Val
20 25 30

<210> 147
<211> 28
<212> PRT
<213> Homo sapiens

<400> 147
His Gln Phe Val Asp Glu Thr Asn Asp Lys Ile Arg Glu Val Thr Gln
1 5 10 15
Arg Leu Asn Gly Glu Ile Gln Ala Leu Glu Leu Pro
20 25

<210> 148
<211> 31
<212> PRT
<213> Homo sapiens

<400> 148
Ala Ala Lys Asn Leu Thr Asp Phe Ala Glu Gln Tyr Ser Ile Gln Asp
1 5 10 15
Trp Ala Lys Arg Met Lys Ala Leu Val Glu Gln Gly Phe Thr Val
20 25 30

<210> 149
<211> 35
<212> PRT
<213> Homo sapiens

<400> 149
Ser Ala Ser Leu Ala His Met Lys Ala Lys Phe Arg Glu Thr Leu Glu
1 5 10 15
Asp Thr Arg Asp Arg Met Tyr Asp Met Asp Ile Gln Gln Glu Leu Gln
20 25 30
Arg Tyr Leu
35

<210> 150
<211> 35
<212> PRT
<213> Homo sapiens

<400> 150
Cys Leu Asn Leu His Lys Phe Asn Glu Phe Ile Gln Asn Glu Leu Gln
1 5 10 15
Glu Ala Ser Gln Glu Leu Gln Gln Ile His Gln Tyr Ile Met Ala Leu
20 25 30
Arg Glu Glu
35

<210> 151
<211> 33
<212> PRT
<213> Homo sapiens

<400> 151
Phe Leu Ile Tyr Ile Thr Glu Leu Leu Lys Lys Leu Gln Ser Thr Thr
1 5 10 15

Val Met Asn Pro Tyr Met Lys Leu Ala Pro Gly Glu Leu Thr Ile Ile
20 25 30

Leu

<210> 152
<211> 30
<212> PRT
<213> Homo sapiens

<400> 152
Arg Leu Leu Asp His Arg Val Pro Glu Thr Asp Met Thr Phe Arg His
1 5 10 15

Val Gly Ser Lys Leu Ile Val Ala Met Ser Ser Trp Leu Gln
20 25 30

<210> 153
<211> 30
<212> PRT
<213> Homo sapiens

<400> 153
Leu Asn Phe Ser Lys Leu Glu Ile Gln Ser Gln Val Asp Ser Gln His
1 5 10 15

Val Gly His Ser Val Leu Thr Ala Lys Gly Met Ala Leu Phe
20 25 30

<210> 154
<211> 30
<212> PRT
<213> Homo sapiens

<400> 154
Asn Gln Asn Phe Ser Ala Gly Asn Asn Glu Asn Ile Met Glu Ala His
1 5 10 15

Val Gly Ile Asn Gly Glu Ala Asn Leu Asp Phe Leu Asn Ile
20 25 30

<210> 155

<211> 29
<212> PRT
<213> Homo sapiens

<400> 155
Met Val Val Thr Arg Ile Ala Pro Ser Pro Thr Gly Asp Pro His Val
1 5 10 15
Gly Thr Ala Tyr Ile Ala Leu Phe Asn Tyr Ala Trp Ala
20 25

<210> 156
<211> 30
<212> PRT
<213> Homo sapiens

<400> 156
Thr Thr Val His Thr Arg Phe Pro Pro Glu Pro Asn Gly Tyr Leu His
1 5 10 15
Ile Gly His Ala Lys Ser Ile Cys Leu Asn Phe Gly Ile Ala
20 25 30

<210> 157
<211> 30
<212> PRT
<213> Homo sapiens

<400> 157
Lys Ile Lys Leu Tyr Cys Gly Val Asp Pro Thr Ala Gln Ser Leu His
1 5 10 15
Leu Gly Asn Leu Val Pro Met Val Leu Leu His Phe Tyr Val
20 25 30

<210> 158
<211> 30
<212> PRT
<213> Homo sapiens

<400> 158
Pro Ile Ala Leu Tyr Cys Gly Phe Asp Pro Thr Ala Asp Ser Leu His
1 5 10 15
Leu Gly His Leu Val Pro Leu Leu Cys Leu Lys Arg Gly Gln
20 25 30

<210> 159
<211> 30
<212> PRT
<213> Homo sapiens

<400> 159

Arg Val Thr Leu Tyr Cys Gly Phe Asp Pro Thr Ala Asp Ser Leu His
1 5 10 15

Ile Gly Asn Leu Ala Ala Ile Leu Thr Leu Arg Arg Phe Gln
20 25 30

<210> 160
<211> 30
<212> PRT
<213> Homo sapiens

<400> 160
Arg Ile Gly Ala Tyr Val Gly Ile Asp Pro Thr Ala Pro Ser Leu His
1 5 10 15

Val Gly His Leu Leu Pro Leu Met Pro Leu Phe Trp Met Tyr
20 25 30

<210> 161
<211> 30
<212> PRT
<213> Homo sapiens

<400> 161
Pro Ile Ala Leu Tyr Cys Gly Phe Asp Pro Thr Ala Asp Ser Leu His
1 5 10 15

Leu Gly His Leu Val Pro Leu Leu Cys Leu Lys Arg Phe Gln
20 25 30

<210> 162
<212> PRT
<213> Homo sapiens

<400> 162

<210> 163
<211> 43
<212> PRT
<213> Homo sapiens

<400> 163
Val Ser Lys Gly Leu Leu Ile Phe Asp Ala Ser Ser Ser Met Gly Pro
1 5 10 15

Gln Met Ser Ala Ser Val His Leu Asp Ser Lys Lys Lys Gln His Leu
20 25 30

Phe Val Lys Glu Val Lys Ile Asp Gly Gln Phe
35 40

<210> 164
<211> 43
<212> PRT
<213> Homo sapiens

<400> 164
Thr Ile Ile Thr Thr Pro Pro Leu Lys Asp Phe Ser Leu Trp Glu Lys
1 5 10 15
Thr Gly Leu Lys Glu Phe Leu Lys Thr Thr Lys Gln Ser Phe Asp Leu
20 25 30
Ser Val Lys Ala Gln Tyr Lys Lys Asn Lys His
35 40

<210> 165
<211> 39
<212> PRT
<213> Homo sapiens

<400> 165
Lys Asn Arg Asn Asn Ala Leu Asp Phe Val Thr Lys Ser Tyr Asn Glu
1 5 10 15
Thr Lys Ile Lys Phe Asp Lys Tyr Lys Ala Glu Lys Ser Gln Asp Glu
20 25 30
Leu Pro Arg Thr Phe Gln Ile
35

<210> 166
<211> 36
<212> PRT
<213> Homo sapiens

<400> 166
Asp Ala Leu Gln Tyr Lys Leu Glu Gly Thr Thr Arg Leu Thr Arg Lys
1 5 10 15
Arg Gly Leu Lys Leu Ala Thr Ala Leu Ser Leu Ser Asn Lys Phe Val
20 25 30
Glu Gly Ser His
35

<210> 167
<212> PRT
<213> Homo sapiens

<400> 167

<210> 168

<211> 42
<212> PRT
<213> Homo sapiens

<400> 168
Asp Asn Ile Thr Ile Pro Val His Pro Arg Gln Tyr Glu Phe Ser Arg
1 5 10 15
Leu Asn Leu Glu Tyr Thr Val Met Ser Lys Arg Lys Leu Asn Leu Leu
20 25 30
Val Thr Asp Lys His Val Glu Gly Trp Asp
35 40

<210> 169
<211> 40
<212> PRT
<213> Homo sapiens

<400> 169
Lys Asn Lys Gly Leu Pro Phe Gly Ile Thr Val Pro Leu Leu Thr Thr
1 5 10 15
Ala Thr Gly Glu Lys Phe Gly Lys Ser Ala Gly Asn Ala Val Phe Ile
20 25 30
Asp Pro Ser Ile Asn Thr Ala Tyr
35 40

<210> 170
<211> 41
<212> PRT
<213> Homo sapiens

<400> 170
Arg Leu His Gln Asn Gln Val Phe Gly Leu Thr Val Pro Leu Ile Thr
1 5 10 15
Lys Ala Asp Gly Thr Lys Phe Gly Lys Thr Glu Gly Gly Ala Val Trp
20 25 30
Leu Asp Pro Lys Lys Thr Ser Pro Tyr
35 40

<210> 171
<211> 42
<212> PRT
<213> Homo sapiens

<400> 171
Lys Thr Lys Gly Glu Ala Arg Ala Phe Gly Leu Thr Ile Pro Leu Val
1 5 10 15
Thr Lys Ala Asp Gly Thr Lys Phe Gly Lys Thr Glu Ser Gly Thr Ile

	20	25	30
Trp	Leu	Asp	Lys
	35		
		Lys	Thr
		40	
		Ser	Pro
			Tyr

<210> 172
 <211> 41
 <212> PRT
 <213> Homo sapiens

<400> 172																			
Lys	Thr	Ala	Leu	Asp	Glu	Cys	Val	Gly	Phe	Thr	Val	Pro	Leu	Leu	Thr				
1					5				10					15					

Asp	Ser	Ser	Gly	Ala	Lys	Phe	Gly	Lys	Ser	Ala	Gly	Asn	Ala	Ile	Trp
			20					25					30		

Leu	Asp	Pro	Tyr	Gln	Thr	Ser	Val	Phe
	35					40		

<210> 173
 <211> 41
 <212> PRT
 <213> Homo sapiens

<400> 173																			
Arg	Leu	His	Gln	Asn	Gln	Val	Phe	Gly	Leu	Thr	Val	Pro	Leu	Ile	Thr				
1				5					10					15					

Lys	Ala	Asp	Gly	Thr	Lys	Phe	Gly	Lys	Thr	Glu	Gly	Gly	Ala	Val	Trp
			20					25					30		

Leu	Asp	Pro	Lys	Lys	Thr	Ser	Pro	Tyr
	35					40		

<210> 174
 <211> 42
 <212> PRT
 <213> Homo sapiens

<400> 174																			
Ser	Ala	Gly	Lys	Lys	Pro	Gln	Val	Ala	Ile	Thr	Leu	Pro	Leu	Leu	Val				
1				5					10					15					

Gly	Leu	Asp	Gly	Glu	Lys	Lys	Met	Ser	Lys	Ser	Leu	Gly	Asn	Tyr	Ile
			20					25					30		

Gly	Val	Thr	Glu	Ala	Pro	Ser	Asp	Met	Phe
	35						40		

<210> 175
 <211> 35
 <212> PRT

<213> Homo sapiens

<400> 175

Arg Val Ser Thr Ala Phe Val Tyr Thr Lys Asn Pro Asn Gly Tyr Ser
1 5 10 15

Phe Ser Ile Pro Val Lys Val Leu Ala Asp Lys Phe Ile Thr Pro Gly
20 25 30

Leu Lys Leu
35

<210> 176

<211> 29

<212> PRT

<213> Homo sapiens

<400> 176

Lys Leu Gly Gln Gly Cys Phe Gly Glu Val Trp Met Gly Thr Trp Asn
1 5 10 15

Gly Thr Thr Arg Val Ala Ile Lys Thr Leu Lys Pro Gly
20 25

<210> 177

<211> 4

<212> PRT

<213> Homo sapiens

<400> 177

His Ile Gly His
1

<210> 178

<211> 17

<212> PRT

<213> Homo sapiens

<400> 178

His Lys Asn Thr Ser Thr Leu Ser Cys Asp Gly Ser Leu Arg His Lys
1 5 10 15

Phe

<210> 179

<211> 17

<212> PRT

<213> Homo sapiens

<400> 179

Arg Lys Leu Lys His Ile Asn Ile Asp Gln Phe Val Arg Lys Tyr Arg
1 5 10 15

Ala

<210> 180
<211> 18
<212> PRT
<213> Homo sapiens

<400> 180
Arg His Ile Gln Asn Ile Asp Ile Gln His Leu Ala Gly Lys Leu Lys
1 5 10 15

Gln His

<210> 181
<211> 17
<212> PRT
<213> Homo sapiens

<400> 181
Lys Lys Gly Phe Tyr Lys Lys Lys Gln Cys Arg Pro Ser Lys Gly Arg
1 5 10 15

Lys

<210> 182
<211> 18
<212> PRT
<213> Homo sapiens

<400> 182
Lys Lys Pro Leu Asp Gly Glu Tyr Phe Thr Leu Gln Ile Arg Gly Arg
1 5 10 15

Glu Arg

<210> 183
<211> 17
<212> PRT
<213> Homo sapiens

<400> 183
Lys Arg Ala Leu Pro Asn Asn Thr Ser Ser Ser Pro Gln Pro Lys Lys
1 5 10 15

Lys

<210> 184
<211> 17
<212> PRT
<213> Homo sapiens

<400> 184
Lys Lys Thr Asn Leu Phe Ser Ala Leu Ile Lys Lys Lys Lys Lys Thr
1 5 10 15

Ala

<210> 185
<211> 17
<212> PRT
<213> Homo sapiens

<400> 185
Arg Lys Thr Leu Leu Asn Ser Leu Glu Glu Ala Lys Lys Lys Lys Glu
1 5 10 15

Asp

<210> 186
<211> 17
<212> PRT
<213> Homo sapiens

<400> 186
Arg Arg Glu Leu Asp Glu Ser Leu Gln Val Ala Glu Arg Leu Thr Arg
1 5 10 15

Lys

<210> 187
<211> 17
<212> PRT
<213> Homo sapiens

<400> 187
Arg Arg Ser Tyr Ala Leu Val Ser Leu Ser Phe Phe Arg Lys Leu Arg
1 5 10 15

Leu

<210> 188
<211> 17
<212> PRT
<213> Homo sapiens

<400> 188

Arg Arg Tyr Gly Asp Glu Glu Leu His Leu Cys Val Ser Arg Lys His
1 5 10 15

Phe

<210> 189

<211> 17

<212> PRT

<213> Homo sapiens

<400> 189

Lys Arg Val Ala Lys Arg Lys Leu Ile Glu Gln Asn Arg Glu Arg Arg
1 5 10 15

Arg

<210> 190

<211> 17

<212> PRT

<213> Homo sapiens

<400> 190

His Arg Ser Thr Asn Ala Gln Gly Ser His Trp Lys Gln Arg Arg Lys
1 5 10 15

Phe

<210> 191

<211> 17

<212> PRT

<213> Homo sapiens

<400> 191

Lys Arg Pro Pro Ile Ser Asp Ser Glu Glu Leu Ser Ala Lys Lys Arg
1 5 10 15

Lys

<210> 192

<211> 17

<212> PRT

<213> Homo sapiens

<400> 192

Lys Lys Gly Lys Lys Pro Lys Thr Glu Lys Glu Asp Lys Val Lys His
1 5 10 15

Ile

<210> 193
<211> 17
<212> PRT
<213> Homo sapiens

<400> 193
Arg Lys Arg Met Arg Asn Arg Ile Ala Ala Ser Lys Cys Arg Lys Arg
1 5 10 15

Lys

<210> 194
<211> 18
<212> PRT
<213> Homo sapiens

<400> 194
Arg His Ile Gln Asn Ile Asp Ile Gln His Leu Ala Gly Lys Leu Lys
1 5 10 15

Gln His

<210> 195
<211> 21
<212> PRT
<213> Homo sapiens

<400> 195
Lys Lys Ile Thr Glu Val Ala Leu Met Gly His Leu Ser Cys Asp Thr
1 5 10 15

Lys Glu Glu Arg Lys
20

<210> 196
<211> 14
<212> PRT
<213> Homo sapiens

<400> 196
Lys His Ile Asn Ile Asp Gln Phe Val Arg Lys Tyr Arg Ala
1 5 10

<210> 197
<211> 21
<212> PRT
<213> Homo sapiens

<400> 197

His Arg Asn Ile Gln Glu Tyr Leu Ser Ile Leu Thr Asp Pro Asp Gly
1 5 10 15

Lys Gly Lys Glu Lys
20

<210> 198

<211> 18

<212> PRT

<213> Homo sapiens

<400> 198

Lys Glu Val Tyr Gly Phe Asn Pro Glu Gly Lys Ala Leu Leu Lys Lys
1 5 10 15

Thr Lys

<210> 199

<211> 18

<212> PRT

<213> Homo sapiens

<400> 199

Lys Val Leu Val Asp His Phe Gly Tyr Thr Lys Asp Asp Lys His Glu
1 5 10 15

Asp Met

<210> 200

<212> PRT

<213> Homo sapiens

<400> 200

<210> 201

<212> PRT

<213> Homo sapiens

<400> 201

<210> 202

<211> 18

<212> PRT

<213> Homo sapiens

<400> 202

Lys Tyr Gln Ile Arg Ile Gln Ile Gln Glu Lys Leu Gln Gln Leu Lys

1	5	10	15
---	---	----	----

Arg His

<210> 203
 <211> 20
 <212> PRT
 <213> Homo sapiens

<400> 203
 Lys Gly Met Ala Leu Phe Gly Glu Gly Lys Ala Glu Phe Thr Gly Arg
 1 5 10 15

His Asp Ala His
 20

<210> 204
 <211> 18
 <212> PRT
 <213> Homo sapiens

<400> 204
 Lys Gln Ser Phe Asp Leu Ser Val Lys Ala Gln Tyr Lys Lys Asn Lys
 1 5 10 15

His Arg

<210> 205
 <211> 15
 <212> PRT
 <213> Homo sapiens

<400> 205
 Lys Leu Glu Gly Thr Thr Arg Leu Thr Arg Lys Arg Gly Leu Lys
 1 5 10 15

<210> 206
 <211> 15
 <212> PRT
 <213> Homo sapiens

<400> 206
 Lys Leu Asp Val Thr Thr Ser Ile Gly Arg Arg Gln His Leu Arg
 1 5 10 15

<210> 207
 <212> PRT
 <213> Homo sapiens

<400> 207

<210> 208
<211> 16
<212> PRT
<213> Homo sapiens

<400> 208
Lys Ser Pro Ala Thr Asp Leu His Leu Arg Tyr Gln Lys Asp Lys Lys
1 5 10 15

<210> 209
<211> 20
<212> PRT
<213> Homo sapiens

<400> 209
Lys Tyr His Trp Glu His Thr Gly Leu Thr Leu Arg Glu Val Ser Ser
1 5 10 15

Lys Leu Arg Arg
20

<210> 210
<211> 21
<212> PRT
<213> Homo sapiens

<400> 210
Lys Asp Asn Val Phe Asp Gly Leu Val Arg Val Thr Gln Lys Phe His
1 5 10 15

Met Lys Val Lys His
20

<210> 211
<212> PRT
<213> Homo sapiens

<400> 211

<210> 212
<211> 94
<212> PRT
<213> Homo sapiens

<400> 212
Pro Gln Gln Val Asn Asp Tyr Leu Ser Thr Phe Ser Trp Glu Arg Gln
1 5 10 15

Val Leu Ser Ala Lys Lys Lys His Ser Asp Phe Met Glu Asp Tyr Arg

	20		25		30
Ile Thr Glu Asn Asp Val Arg Ile Ala Leu Asp Asn Ala Lys Ile Asn					
	35		40		45
Leu Asn Glu Lys Leu Thr Gln Leu Gln Thr Tyr Val Ile Gln Phe Asp					
	50		55		60
Gln Tyr Ile Lys Asp Asn Tyr Asp Leu His Asp Phe Lys Thr Ala Ile					
	65		70		75
					80
Ala Arg Ile Ile Asp Glu Ile Ile Ala Thr Leu Lys Ile Leu					
	85		90		

<210> 213
 <211> 85
 <212> PRT
 <213> Homo sapiens

<400> 213														
Lys Tyr Arg Val Ala Leu Ser Arg Leu Pro Gln Gln Ile His Asp Tyr														
1			5				10						15	
Leu Asn Ala Ser Asp Trp Glu Arg Gln Val Ala Gly Ala Lys Glu Lys														
			20				25						30	
Leu Thr Ser Phe Met Glu Asn Tyr Arg Ile Thr Asp Asn Asp Val Leu														
			35				40						45	
Ile Ala Leu Asp Ser Ala Lys Ile Asn Leu Asn Glu Lys Leu Ser Gln														
			50				55						60	
Leu Glu Thr Tyr Ala Ile Gln Phe Asp Gln Tyr Ile Arg Asp Asn Tyr														
			65				70						75	
														80
Asp Ala Gln Asp Leu														
			85											

<210> 214
 <211> 2
 <212> PRT
 <213> Homo sapiens

<400> 214
 Lys Lys
 1

<210> 215
 <212> PRT
 <213> Homo sapiens

<400> 215

<210> 216
 <211> 785
 <212> PRT
 <213> Homo sapiens

<400> 216

Glu Phe Gln Leu Pro His Leu Ser His Thr Ile Glu Ile Pro Ala Phe
 1 5 10 15

Gly Lys Leu His Ser Ile Leu Lys Ile Gln Ser Pro Leu Phe Ile Leu
 20 25 30

Asp Ala Asn Ala Asn Ile Gln Asn Val Thr Thr Ser Gly Asn Lys Ala
 35 40 45

Glu Ile Val Ala Ser Val Thr Ala Lys Gly Glu Ser Gln Phe Glu Ala
 50 55 60

Leu Asn Phe Asp Phe Gln Ala Gln Ala Gln Phe Leu Glu Leu Asn Pro
 65 70 75 80

His Pro Pro Val Leu Lys Glu Ser Met Asn Phe Ser Ser Lys His Val
 85 90 95

Arg Met Glu His Glu Gly Glu Ile Val Phe Asp Gly Lys Ala Ile Glu
 100 105 110

Gly Lys Ser Asp Thr Val Ala Ser Leu His Thr Glu Lys Asn Glu Val
 115 120 125

Glu Phe Asn Asn Gly Met Thr Val Lys Val Asn Asn Gln Leu Thr Leu
 130 135 140

Asp Ser His Thr Lys Tyr Phe His Lys Leu Ser Val Pro Arg Leu Asp
 145 150 155 160

Phe Ser Ser Lys Ala Ser Leu Asn Asn Glu Ile Lys Thr Leu Leu Glu
 165 170 175

Ala Gly His Val Ala Leu Thr Ser Ser Gly Thr Gly Ser Trp Asn Trp
 180 185 190

Ala Cys Pro Asn Phe Ser Asp Glu Gly Ile His Ser Ser Gln Ile Ser
 195 200 205

Phe Thr Val Asp Gly Pro Ile Ala Phe Val Gly Leu Ser Asn Asn Ile
 210 215 220

Asn Gly Lys His Leu Arg Val Ile Gln Lys Leu Thr Tyr Glu Ser Gly
 225 230 235 240

Phe Leu Asn Tyr Ser Lys Phe Glu Val Glu Ser Lys Val Glu Ser Gln
 245 250 255

His Val Gly Ser Ser Ile Leu Thr Ala Asn Gly Arg Ala Leu Leu Lys
 260 265 270

Asp	Ala	Lys	Ala	Glu	Met	Thr	Gly	Glu	His	Asn	Ala	Asn	Leu	Asn	Gly	275	280	285
Lys	Val	Ile	Gly	Thr	Leu	Lys	Asn	Ser	Leu	Phe	Phe	Ser	Ala	Gln	Pro	290	295	300
Phe	Glu	Ile	Thr	Ala	Ser	Thr	Asn	Asn	Glu	Gly	Asn	Leu	Lys	Val	Gly	305	310	315
Phe	Pro	Leu	Lys	Leu	Thr	Gly	Lys	Ile	Asp	Phe	Leu	Asn	Asn	Tyr	Ala	325	330	335
Leu	Phe	Leu	Ser	Pro	Arg	Ala	Gln	Gln	Ala	Ser	Trp	Gln	Ala	Ser	Thr	340	345	350
Arg	Phe	Asn	Gln	Tyr	Lys	Tyr	Asn	Gln	Asn	Phe	Ser	Ala	Ile	Asn	Asn	355	360	365
Glu	His	Asn	Ile	Glu	Ala	Ser	Ile	Gly	Met	Asn	Gly	Asp	Ala	Asn	Leu	370	375	380
Asp	Phe	Leu	Asn	Ile	Pro	Leu	Thr	Ile	Pro	Glu	Ile	Asn	Leu	Pro	Tyr	385	390	395
Thr	Glu	Phe	Lys	Thr	Pro	Leu	Leu	Lys	Asp	Phe	Ser	Ile	Trp	Glu	Glu	405	410	415
Thr	Gly	Leu	Lys	Glu	Phe	Leu	Lys	Thr	Thr	Lys	Gln	Ser	Phe	Asp	Leu	420	425	430
Ser	Val	Lys	Ala	Gln	Tyr	Lys	Lys	Asn	Ser	Asp	Lys	His	Ser	Ile	Val	435	440	445
Val	Pro	Leu	Gly	Met	Phe	Tyr	Glu	Phe	Ile	Leu	Asn	Asn	Val	Asn	Ser	450	455	460
Trp	Asp	Arg	Lys	Phe	Glu	Lys	Val	Arg	Asn	Asn	Ala	Leu	His	Phe	Leu	465	470	475
Thr	Thr	Ser	Tyr	Asn	Glu	Ala	Lys	Ile	Lys	Val	Asp	Lys	Tyr	Lys	Thr	485	490	495
Glu	Asn	Ser	Leu	Asn	Gln	Pro	Ser	Gly	Thr	Phe	Gln	Asn	His	Gly	Tyr	500	505	510
Thr	Ile	Pro	Val	Val	Asn	Ile	Glu	Val	Ser	Pro	Phe	Ala	Val	Glu	Thr	515	520	525
Leu	Ala	Ser	Arg	His	Val	Ile	Pro	Thr	Ala	Ile	Ser	Thr	Pro	Ser	Val	530	535	540
Thr	Ile	Pro	Gly	Pro	Asn	Ile	Met	Val	Pro	Ser	Tyr	Lys	Leu	Val	Leu	545	550	555
Pro	Pro	Leu	Glu	Leu	Pro	Val	Phe	His	Gly	Pro	Gly	Asn	Leu	Phe	Lys	565	570	575

Phe Phe Leu Pro Asp Phe Lys Gly Phe Asn Thr Ile Asp Asn Ile Tyr
580 585 590
Ile Pro Ala Met Gly Asn Phe Thr Tyr Asp Phe Ser Phe Lys Ser Ser
595 600 605
Val Ile Thr Leu Asn Thr Asn Ala Gly Leu Tyr Asn Gln Ser Asp Ile
610 615 620
Val Ala His Phe Leu Ser Ser Ser Ser Phe Val Thr Asp Ala Leu Gln
625 630 635 640
Tyr Lys Leu Glu Gly Thr Ser Arg Leu Met Arg Lys Arg Gly Leu Lys
645 650 655
Leu Ala Thr Ala Val Ser Leu Thr Asn Lys Phe Val Lys Gly Ser His
660 665 670
Asp Ser Thr Ile Ser Leu Thr Lys Lys Asn Met Glu Ala Ser Val Arg
675 680 685
Thr Thr Ala Asn Leu His Ala Pro Ile Phe Ser Met Asn Phe Lys Gln
690 695 700
Glu Leu Asn Gly Asn Thr Lys Ser Lys Pro Thr Val Ser Ser Ser Ile
705 710 715 720
Glu Leu Asn Tyr Asp Phe Asn Ser Ser Lys Leu His Ser Thr Ala Thr
725 730 735
Gly Gly Ile Asp His Lys Phe Ser Leu Glu Ser Leu Thr Ser Tyr Phe
740 745 750
Ser Ile Glu Ser Phe Thr Lys Gly Asn Ile Lys Ser Ser Phe Leu Ser
755 760 765
Gln Glu Tyr Ser Gly Ser Val Ala Asn Glu Ala Asn Val Tyr Leu Asn
770 775 780

Ser
785

<210> 217
<211> 1
<212> PRT
<213> Homo sapiens

<400> 217
Asn
1

<210> 218
<211> 989
<212> PRT

<213> Homo sapiens

<400> 218

Asn	Ser	Lys	Gly	Thr	Arg	Ser	Ser	Val	Arg	Leu	Gln	Gly	Ala	Ser	Asn
1				5				10					15		
Phe	Ala	Gly	Ile	Trp	Asn	Phe	Glu	Val	Gly	Glu	Asn	Phe	Ala	Gly	Glu
		20					25					30			
Ala	Thr	Leu	Arg	Arg	Ile	Tyr	Gly	Thr	Trp	Glu	His	Asn	Met	Ile	Asn
		35				40					45				
His	Leu	Gln	Val	Phe	Ser	Tyr	Phe	Asp	Thr	Lys	Gly	Lys	Gln	Thr	Cys
	50					55					60				
Arg	Ala	Thr	Leu	Glu	Leu	Ser	Pro	Trp	Thr	Met	Ser	Thr	Leu	Leu	Gln
	65				70				75						80
Val	His	Val	Ser	Gln	Pro	Ser	Pro	Leu	Phe	Asp	Leu	His	His	Phe	Asp
				85				90						95	
Gln	Glu	Val	Ile	Leu	Lys	Ala	Ser	Thr	Lys	Asn	Gln	Lys	Val	Ser	Trp
		100						105					110		
Lys	Ser	Glu	Val	Gln	Val	Glu	Ser	Gln	Val	Leu	Gln	His	Asn	Ala	His
		115					120					125			
Phe	Ser	Asn	Asp	Gln	Glu	Glu	Val	Arg	Leu	Asp	Ile	Ala	Gly	Ser	Leu
	130					135					140				
Glu	Gly	Gln	Leu	Trp	Asp	Leu	Glu	Asn	Phe	Phe	Leu	Pro	Ala	Phe	Gly
	145				150					155					160
Lys	Ser	Leu	Arg	Glu	Leu	Leu	Gln	Ile	Asp	Gly	Lys	Arg	Gln	Tyr	Leu
			165					170						175	
Gln	Ala	Ser	Thr	Ser	Leu	His	Tyr	Thr	Lys	Asn	Pro	Asn	Gly	Tyr	Leu
			180					185					190		
Leu	Ser	Leu	Pro	Val	Gln	Glu	Leu	Thr	Asp	Arg	Phe	Ile	Ile	Pro	Gly
		195					200					205			
Leu	Lys	Leu	Asn	Asp	Phe	Ser	Gly	Ile	Lys	Ile	Tyr	Lys	Lys	Leu	Ser
	210					215					220				
Thr	Ser	Pro	Phe	Ala	Leu	Asn	Leu	Thr	Met	Leu	Pro	Lys	Val	Lys	Phe
	225				230					235					240
Pro	Gly	Val	Asp	Leu	Leu	Thr	Gln	Tyr	Ser	Lys	Pro	Glu	Gly	Ser	Ser
			245					250						255	
Val	Pro	Thr	Phe	Glu	Thr	Thr	Ile	Pro	Glu	Ile	Gln	Leu	Thr	Val	Ser
			260				265						270		
Gln	Phe	Thr	Leu	Pro	Lys	Ser	Phe	Pro	Val	Gly	Asn	Thr	Val	Phe	Asp
		275					280					285			

Leu	Asn	Lys	Leu	Thr	Asn	Leu	Ile	Ala	Asp	Val	Asp	Leu	Pro	Ser	Ile	
290						295					300					
Thr	Leu	Pro	Glu	Gln	Thr	Ile	Glu	Ile	Pro	Ser	Leu	Glu	Phe	Ser	Val	
305					310					315					320	
Pro	Ala	Gly	Ile	Phe	Ile	Pro	Phe	Phe	Gly	Glu	Leu	Thr	Ala	His	Val	
			325						330					335		
Gly	Met	Ala	Ser	Pro	Leu	Tyr	Asn	Val	Thr	Trp	Ser	Thr	Gly	Trp	Lys	
			340					345					350			
Asn	Lys	Ala	Asp	His	Val	Glu	Thr	Phe	Leu	Asp	Ser	Thr	Cys	Ser	Ser	
		355					360					365				
Thr	Leu	Gln	Phe	Leu	Glu	Tyr	Ala	Leu	Lys	Val	Val	Gly	Thr	His	Arg	
370						375					380					
Ile	Glu	Asn	Asp	Lys	Phe	Ile	Tyr	Lys	Ile	Lys	Gly	Thr	Leu	Gln	His	
385					390					395					400	
Cys	Asp	Phe	Asn	Val	Lys	Tyr	Asn	Glu	Asp	Gly	Ile	Phe	Glu	Gly	Leu	
			405						410					415		
Trp	Asp	Leu	Glu	Gly	Glu	Ala	His	Leu	Asp	Ile	Thr	Ser	Pro	Ala	Leu	
			420					425					430			
Thr	Asp	Phe	His	Leu	His	Tyr	Lys	Glu	Asp	Lys	Thr	Ser	Val	Ser	Ala	
		435					440					445				
Ser	Ala	Ala	Ser	Pro	Ala	Ile	Gly	Thr	Val	Ser	Leu	Asp	Ala	Ser	Thr	
	450					455					460					
Asp	Asp	Gln	Ser	Val	Arg	Leu	His	Val	Tyr	Phe	Arg	Pro	Gln	Ser	Pro	
465					470					475					480	
Pro	Asp	Asn	Lys	Leu	Ser	Ile	Phe	Lys	Met	Glu	Trp	Arg	Asp	Lys	Glu	
			485						490					495		
Ser	Asp	Gly	Glu	Thr	Tyr	Ile	Lys	Ile	Asn	Trp	Glu	Glu	Glu	Ala	Ala	
		500						505					510			
Phe	Arg	Leu	Leu	Asp	Ser	Leu	Lys	Ser	Asn	Val	Pro	Lys	Ala	Ser	Glu	
		515					520					525				
Ala	Val	Tyr	Asp	Tyr	Val	Lys	Lys	Tyr	His	Leu	Gly	His	Ala	Ser	Ser	
	530					535					540					
Glu	Leu	Arg	Lys	Ser	Leu	Gln	Asn	Asp	Ala	Glu	His	Ala	Ile	Arg	Met	
545					550					555					560	
Val	Asp	Glu	Met	Asn	Val	Asn	Ala	Gln	Arg	Val	Thr	Arg	Asp	Thr	Tyr	
			565						570					575		
Gln	Ser	Leu	Tyr	Lys	Lys	Met	Leu	Ala	Gln	Glu	Ser	Gln	Ser	Ile	Pro	
		580					585						590			

Glu Lys Leu Lys Lys Met Val Leu Gly Ser Leu Val Arg Ile Thr Gln
 595 600 605

Lys Tyr His Met Ala Val Thr Trp Leu Met Asp Ser Val Ile His Phe
 610 615 620

Leu Lys Phe Asn Arg Val Gln Phe Pro Gly Asn Ala Gly Thr Tyr Thr
 625 630 635 640

Val Asp Glu Leu Tyr Thr Ile Ala Met Arg Glu Thr Lys Lys Leu Leu
 645 650 655

Ser Gln Leu Phe Asn Gly Leu Gly His Leu Phe Ser Tyr Val Gln Asp
 660 665 670

Gln Val Glu Lys Ser Arg Val Ile Asn Asp Ile Thr Phe Lys Cys Pro
 675 680 685

Phe Ser Pro Thr Pro Cys Lys Leu Lys Asp Val Leu Leu Ile Phe Arg
 690 695 700

Glu Asp Leu Asn Ile Leu Ser Asn Leu Gly Gln Gln Asp Ile Asn Phe
 705 710 715 720

Thr Thr Ile Leu Ser Asp Phe Gln Ser Phe Leu Glu Arg Leu Leu Asp
 725 730 735

Ile Ile Glu Glu Lys Ile Glu Cys Leu Lys Asn Asn Glu Ser Thr Cys
 740 745 750

Val Pro Asp His Ile Asn Met Phe Phe Lys Thr His Ile Pro Phe Ala
 755 760 765

Phe Lys Ser Leu Arg Glu Asn Ile Tyr Ser Val Phe Ser Glu Phe Asn
 770 775 780

Asp Phe Val Gln Ser Ile Leu Gln Glu Gly Ser Tyr Lys Leu Gln Gln
 785 790 795 800

Val His Gln Tyr Met Lys Ala Phe Arg Glu Glu Tyr Phe Asp Pro Ser
 805 810 815

Val Val Gly Trp Thr Val Lys Tyr Tyr Glu Ile Glu Glu Lys Met Val
 820 825 830

Asp Leu Ile Lys Thr Leu Leu Ala Pro Leu Arg Asp Phe Tyr Ser Glu
 835 840 845

Tyr Ser Val Thr Ala Ala Asp Phe Ala Ser Lys Met Ser Thr Gln Val
 850 855 860

Glu Gln Phe Val Ser Arg Asp Ile Arg Glu Tyr Leu Ser Met Leu Ala
 865 870 875 880

Asp Ile Asn Gly Lys Gly Arg Glu Lys Val Ala Glu Leu Ser Ile Val
 885 890 895

Val Lys Glu Arg Ile Lys Ser Trp Ser Thr Ala Val Ala Glu Ile Thr
 900 905 910
 Ser Asp Tyr Leu Arg Gln Leu His Ser Lys Leu Gln Asp Phe Ser Asp
 915 920 925
 Gln Leu Ser Gly Tyr Tyr Glu Lys Phe Val Ala Glu Ser Thr Arg Leu
 930 935 940
 Ile Asp Leu Ser Ile Gln Asn Tyr His Met Phe Leu Arg Tyr Ile Ala
 945 950 955 960
 Glu Leu Leu Lys Lys Leu Gln Val Ala Thr Ala Asn Asn Val Ser Pro
 965 970 975
 Tyr Leu Arg Phe Ala Gln Gly Glu Leu Ile Ile Thr Phe
 980 985

<210> 219
 <211> 396
 <212> PRT
 <213> Homo sapiens

<400> 219
 Lys Asp Asn Val Phe Asp Gly Leu Val Arg Val Thr Gln Lys Phe His
 1 5 10 15
 Met Lys Val Lys His Leu Ile Asp Ser Leu Ile Asp Phe Leu Asn Phe
 20 25 30
 Pro Arg Phe Gln Phe Pro Gly Lys Pro Gly Ile Tyr Thr Arg Glu Glu
 35 40 45
 Leu Cys Thr Met Phe Ile Arg Glu Val Gly Thr Val Leu Ser Gln Val
 50 55 60
 Tyr Ser Lys Val His Asn Gly Ser Glu Ile Leu Phe Ser Tyr Phe Gln
 65 70 75 80
 Asp Leu Val Ile Thr Leu Pro Phe Glu Leu Arg Lys His Lys Leu Ile
 85 90 95
 Asp Val Ile Ser Met Tyr Arg Glu Leu Leu Lys Asp Leu Ser Lys Glu
 100 105 110
 Ala Gln Glu Val Phe Lys Ala Ile Gln Ser Leu Lys Thr Thr Glu Val
 115 120 125
 Leu Arg Asn Leu Gln Asp Leu Leu Gln Phe Ile Phe Gln Leu Ile Glu
 130 135 140
 Asp Asn Ile Lys Gln Leu Lys Glu Met Lys Phe Thr Tyr Leu Ile Asn
 145 150 155 160
 Tyr Ile Gln Asp Glu Ile Asn Thr Ile Phe Asn Asp Tyr Ile Pro Tyr
 165 170 175

Val Phe Lys Leu Leu Lys Glu Asn Leu Cys Leu Asn Leu His Lys Phe
 180 185 190
 Asn Glu Phe Ile Gln Asn Glu Leu Gln Glu Ala Ser Gln Glu Leu Gln
 195 200 205
 Gln Ile His Gln Tyr Ile Met Ala Leu Arg Glu Glu Tyr Phe Asp Pro
 210 215 220
 Ser Ile Val Gly Trp Thr Val Lys Tyr Tyr Glu Leu Glu Glu Lys Ile
 225 230 235 240
 Val Ser Leu Ile Lys Asn Leu Leu Val Ala Leu Lys Asp Phe His Ser
 245 250 255
 Glu Tyr Ile Val Ser Ala Ser Asn Phe Thr Ser Gln Leu Ser Ser Gln
 260 265 270
 Val Glu Gln Phe Leu His Arg Asn Ile Gln Glu Tyr Leu Ser Ile Leu
 275 280 285
 Thr Asp Pro Asp Gly Lys Gly Lys Glu Lys Ile Ala Glu Leu Ser Ala
 290 295 300
 Thr Ala Gln Glu Ile Ile Lys Ser Gln Ala Ile Ala Thr Lys Lys Ile
 305 310 315 320
 Ile Ser Asp Tyr His Gln Gln Phe Arg Tyr Lys Leu Gln Asp Phe Ser
 325 330 335
 Asp Gln Leu Ser Asp Tyr Tyr Glu Lys Phe Ile Ala Glu Ser Lys Arg
 340 345 350
 Leu Ile Asp Leu Ser Ile Gln Asn Tyr His Thr Phe Leu Ile Tyr Ile
 355 360 365
 Thr Glu Leu Leu Lys Lys Leu Gln Ser Thr Thr Val Met Asn Pro Tyr
 370 375 380
 Met Lys Leu Ala Pro Gly Glu Leu Thr Ile Ile Leu
 385 390 395

<210> 220

<211> 433

<212> PRT

<213> Homo sapiens

<400> 220

Ile Pro Gly Leu Ser Glu Lys Tyr Thr Gly Glu Glu Leu Tyr Leu Met
 1 5 10 15

Thr Thr Glu Lys Ala Ala Lys Thr Ala Asp Ile Cys Leu Ser Lys Leu
 20 25 30

Gln Glu Tyr Phe Asp Ala Leu Ile Ala Ala Ile Ser Glu Leu Glu Val

35					40					45						
Arg	Val	Pro	Ala	Ser	Glu	Thr	Ile	Leu	Arg	Gly	Arg	Asn	Val	Leu	Asp	
50					55					60						
Gln	Ile	Lys	Glu	Met	Leu	Lys	His	Leu	Gln	Glu	Lys	Ile	Arg	Gln	Thr	
65					70					75					80	
Phe	Val	Thr	Leu	Gln	Glu	Ala	Asp	Phe	Ala	Gly	Lys	Leu	Asn	Arg	Leu	
85					90					95						
Lys	Gln	Val	Val	Gln	Lys	Thr	Phe	Gln	Lys	Ala	Gly	Asn	Met	Val	Arg	
100					105					110						
Ser	Leu	Gln	Ser	Lys	Asn	Phe	Glu	Asp	Ile	Lys	Val	Gln	Met	Gln	Gln	
115					120					125						
Leu	Tyr	Lys	Asp	Ala	Met	Ala	Ser	Asp	Tyr	Ala	His	Lys	Leu	Arg	Ser	
130					135					140						
Leu	Ala	Glu	Asn	Val	Lys	Lys	Tyr	Ile	Ser	Gln	Ile	Lys	Asn	Phe	Ser	
145					150					155					160	
Gln	Lys	Thr	Leu	Gln	Lys	Leu	Ser	Glu	Asn	Leu	Gln	Gln	Leu	Val	Leu	
165					170					175						
Tyr	Ile	Lys	Ala	Leu	Arg	Glu	Glu	Tyr	Phe	Asp	Pro	Thr	Thr	Leu	Gly	
180					185					190						
Trp	Ser	Val	Lys	Tyr	Tyr	Glu	Val	Glu	Asp	Lys	Val	Leu	Gly	Leu	Leu	
195					200					205						
Lys	Asn	Leu	Met	Asp	Thr	Leu	Val	Ile	Trp	Tyr	Asn	Glu	Tyr	Ala	Lys	
210					215					220						
Asp	Leu	Ser	Asp	Leu	Val	Thr	Arg	Leu	Thr	Asp	Gln	Val	Arg	Glu	Leu	
225					230					235					240	
Val	Glu	Asn	Tyr	Arg	Gln	Glu	Tyr	Tyr	Asp	Leu	Ile	Thr	Asp	Val	Glu	
245					250					255						
Gly	Lys	Gly	Arg	Gln	Lys	Val	Met	Glu	Leu	Ser	Ser	Ala	Ala	Gln	Glu	
260					265					270						
Lys	Ile	Arg	Tyr	Trp	Ser	Ala	Val	Ala	Lys	Arg	Lys	Ile	Asn	Glu	His	
275					280					285						
Asn	Arg	Gln	Val	Lys	Ala	Lys	Leu	Gln	Glu	Ile	Tyr	Gly	Gln	Leu	Ser	
290					295					300						
Asp	Ser	Gln	Glu	Lys	Leu	Ile	Asn	Val	Ala	Lys	Met	Leu	Ile	Asp	Leu	
305					310					315					320	
Thr	Val	Glu	Lys	Tyr	Ser	Thr	Phe	Met	Lys	Tyr	Ile	Phe	Glu	Leu	Leu	
325					330					335						
Arg	Trp	Phe	Glu	Gln	Ala	Thr	Ala	Asp	Ser	Ile	Lys	Pro	Tyr	Ile	Ala	

340	345	350
Val Arg Glu Gly Glu Leu Arg Ile Asp Val Pro Phe Asp Trp Glu Tyr		
355	360	365
Ile Asn Gln Met Pro Gln Lys Ser Arg Glu Ala Leu Arg Asn Lys Val		
370	375	380
Glu Leu Thr Arg Ala Leu Ile Gln Gln Gly Val Glu Gln Gly Thr Arg		
385	390	395
Lys Trp Glu Glu Met Gln Ala Phe Ile Asp Glu Gln Leu Ala Thr Glu		
405	410	415
Gln Leu Ser Phe Gln Gln Ile Val Glu Asn Ile Gln Lys Arg Met Lys		
420	425	430

Thr

<210> 221
 <211> 180
 <212> PRT
 <213> Homo sapiens

<400> 221

Asp Met Thr Phe Ser Lys Gln Asn Ala Leu Leu Arg Ser Glu Tyr Gln		
1	5	10
Ala Asp Tyr Glu Ser Leu Arg Phe Phe Ser Leu Leu Ser Gly Ser Leu		
20	25	30
Asn Ser His Gly Leu Glu Leu Asn Ala Asp Ile Leu Gly Thr Asp Lys		
35	40	45
Ile Asn Ser Gly Ala His Lys Ala Thr Leu Arg Ile Gly Gln Asp Gly		
50	55	60
Ile Ser Thr Ser Ala Thr Thr Asn Leu Lys Cys Ser Leu Leu Val Leu		
65	70	75
Glu Asn Glu Leu Asn Ala Glu Leu Gly Leu Ser Gly Ala Ser Met Lys		
85	90	95
Leu Thr Thr Asn Gly Arg Phe Arg Glu His Asn Ala Lys Phe Ser Leu		
100	105	110
Asp Gly Lys Ala Ala Leu Thr Glu Leu Ser Leu Gly Ser Ala Tyr Gln		
115	120	125
Ala Met Ile Leu Gly Val Asp Ser Lys Asn Ile Phe Asn Phe Lys Val		
130	135	140
Ser Gln Glu Gly Leu Lys Leu Ser Asn Asp Met Met Gly Ser Tyr Ala		
145	150	155
		160

Glu Met Lys Phe Asp His Thr Asn Ser Leu Asn Ile Ala Gly Leu Ser
165 170 175

Leu Asp Phe Ser
180

<210> 222

<211> 142

<212> PRT

<213> Homo sapiens

<400> 222

Asp Leu Thr Phe Ser Lys Gln Asn Ala Leu Leu Arg Ala Glu Tyr Gln
1 5 10 15

Ala Asp Tyr Lys Ser Leu Arg Phe Phe Thr Leu Leu Ser Gly Leu Leu
20 25 30

Asn Thr His Gly Leu Glu Leu Asn Ala Asp Ile Leu Gly Thr Asp Lys
35 40 45

Met Asn Thr Ala Ala His Lys Ala Thr Leu Arg Ile Gly Gln Asn Gly
50 55 60

Val Ser Thr Ser Ala Thr Thr Ser Leu Arg Tyr Ser Pro Leu Met Leu
65 70 75 80

Glu Asn Glu Leu Asn Ala Glu Leu Ala Leu Ser Gly Ala Ser Met Lys
85 90 95

Leu Ala Thr Asn Gly Arg Phe Lys Glu His Asn Ala Lys Phe Ser Leu
100 105 110

Asp Gly Lys Ala Thr Leu Thr Glu Leu Ser Leu Gly Ser Ala Tyr Gln
115 120 125

Ala Met Ile Leu Gly Ala Asp Ser Lys Asn Ile Phe Asn Phe
130 135 140

<210> 223

<211> 420

<212> PRT

<213> Homo sapiens

<400> 223

His Ile Phe Ile Pro Ala Met Gly Asn Ile Thr Tyr Asp Phe Ser Phe
1 5 10 15

Lys Ser Ser Val Ile Thr Leu Asn Thr Asn Ala Glu Leu Phe Asn Gln
20 25 30

Ser Asp Ile Val Ala His Leu Leu Ser Ser Ser Ser Val Ile Asp
35 40 45

Ala Leu Gln Tyr Lys Leu Glu Gly Thr Thr Arg Leu Thr Arg Lys Arg

50					55					60					
Gly	Leu	Lys	Leu	Ala	Thr	Ala	Leu	Ser	Leu	Ser	Asn	Lys	Phe	Val	Glu
65					70				75						80
Gly	Ser	His	Asn	Ser	Thr	Val	Ser	Leu	Thr	Thr	Lys	Asn	Met	Glu	Val
			85						90					95	
Ser	Val	Ala	Lys	Thr	Thr	Lys	Ala	Glu	Ile	Pro	Ile	Leu	Arg	Met	Asn
			100					105					110		
Phe	Lys	Gln	Glu	Leu	Asn	Gly	Asn	Thr	Lys	Ser	Lys	Pro	Thr	Val	Ser
		115					120					125			
Ser	Ser	Met	Glu	Phe	Lys	Tyr	Asp	Phe	Asn	Ser	Ser	Met	Leu	Tyr	Ser
	130					135					140				
Thr	Ala	Lys	Gly	Ala	Val	Asp	His	Lys	Leu	Ser	Leu	Glu	Ser	Leu	Thr
145					150					155					160
Ser	Tyr	Phe	Ser	Ile	Glu	Ser	Ser	Thr	Lys	Gly	Asp	Val	Lys	Gly	Ser
				165					170					175	
Val	Leu	Ser	Arg	Glu	Tyr	Ser	Gly	Thr	Ile	Ala	Ser	Glu	Ala	Asn	Thr
			180					185					190		
Tyr	Leu	Asn	Ser	Lys	Ser	Thr	Arg	Ser	Ser	Val	Lys	Leu	Gln	Gly	Thr
	195						200					205			
Ser	Lys	Ile	Asp	Asp	Ile	Trp	Asn	Leu	Glu	Val	Lys	Glu	Asn	Phe	Ala
	210					215					220				
Gly	Glu	Ala	Thr	Leu	Gln	Arg	Ile	Tyr	Ser	Leu	Trp	Glu	His	Ser	Thr
225					230					235					240
Lys	Asn	His	Leu	Gln	Leu	Glu	Gly	Leu	Phe	Phe	Thr	Asn	Gly	Glu	His
				245					250					255	
Thr	Ser	Lys	Ala	Thr	Leu	Glu	Leu	Ser	Pro	Trp	Gln	Met	Ser	Ala	Leu
			260					265					270		
Val	Gln	Val	His	Ala	Ser	Gln	Pro	Ser	Ser	Phe	His	Asp	Phe	Pro	Asp
		275					280					285			
Leu	Gly	Gln	Glu	Val	Ala	Leu	Asn	Ala	Asn	Thr	Lys	Asn	Gln	Lys	Ile
	290					295					300				
Arg	Trp	Lys	Asn	Glu	Val	Arg	Ile	His	Ser	Gly	Ser	Phe	Gln	Ser	Gln
305					310					315					320
Val	Glu	Leu	Ser	Asn	Asp	Gln	Glu	Lys	Ala	His	Leu	Asp	Ile	Ala	Gly
				325					330					335	
Ser	Leu	Glu	Gly	His	Leu	Arg	Phe	Leu	Lys	Asn	Ile	Ile	Leu	Pro	Val
			340					345					350		
Tyr	Asp	Lys	Ser	Leu	Trp	Asp	Phe	Leu	Lys	Leu	Asp	Val	Thr	Thr	Ser

355	360	365
Ile Gly Arg Arg Gln His Leu Arg Val Ser Thr Ala Phe Val Tyr Thr		
370	375	380
Lys Asn Pro Asn Gly Tyr Ser Phe Ser Ile Pro Val Lys Val Leu Ala		
385	390	395 400
Asp Lys Phe Ile Thr Pro Gly Leu Lys Leu Asn Asp Leu Asn Ser Val		
	405 410	415
Leu Val Met Pro		
420		

<210> 224
 <211> 275
 <212> PRT
 <213> Homo sapiens

<400> 224
Met Ala Ser Glu Lys Gly Pro Ser Asn Lys Asp Tyr Thr Leu Arg Arg
1 5 10 15
Arg Ile Glu Pro Trp Glu Phe Glu Val Phe Phe Asp Pro Gln Glu Leu
20 25 30
Arg Lys Glu Ala Cys Leu Leu Tyr Glu Ile Lys Trp Gly Ala Ser Ser
35 40 45
Lys Thr Trp Arg Ser Ser Gly Lys Asn Thr Thr Asn His Val Glu Val
50 55 60
Asn Phe Leu Glu Lys Leu Thr Arg Lys Glu Ala Cys Leu Leu Tyr Glu
65 70 75 80
Ile Lys Trp Gly Ala Ser Ser Lys Thr Trp Arg Ser Ser Gly Lys Asn
85 90 95
Thr Thr Asn His Val Glu Val Asn Phe Leu Glu Lys Leu Thr Ser Glu
100 105 110
Gly Arg Leu Gly Pro Ser Thr Cys Cys Ser Ile Thr Trp Phe Leu Ser
115 120 125
Trp Ser Pro Cys Trp Glu Cys Ser Met Ala Ile Arg Glu Phe Leu Ser
130 135 140
Gln His Pro Gly Val Thr Leu Ile Ile Phe Val Ala Arg Leu Phe Gln
145 150 155 160
His Met Asp Arg Arg Asn Arg Gln Gly Leu Lys Asp Leu Val Thr Ser
165 170 175
Gly Val Thr Val Arg Val Met Ser Val Ser Glu Tyr Cys Tyr Cys Trp
180 185 190

Glu Asn Phe Val Asn Tyr Pro Pro Gly Lys Ala Ala Gln Trp Pro Arg
 195 200 205
 Tyr Pro Pro Arg Trp Met Leu Met Tyr Ala Leu Glu Leu Tyr Cys Ile
 210 215 220
 Ile Leu Gly Leu Pro Pro Cys Leu Lys Ile Ser Arg Arg His Gln Lys
 225 230 235 240
 Gln Leu Thr Phe Phe Ser Leu Thr Pro Gln Tyr Cys His Tyr Lys Met
 245 250 255
 Ile Pro Pro Tyr Ile Leu Leu Ala Thr Gly Leu Leu Gln Pro Ser Val
 260 265 270
 Pro Trp Arg
 275

<210> 225
 <211> 589
 <212> DNA
 <213> Human cytomegalovirus

<400> 225
 ggatctgacg gttcactaaa ccagctctgc ttatatagac ctcccaccgt acacgcctac 60
 cgcccatttg cgtcaatggg gcggagtgtg tacgacattt tggaaagtcc cgttgatttt 120
 ggtgccaaaa caaactccat tgacgtcaat ggggtggaga cttggaaatc cccgtgagtc 180
 aaaccgctat ccacgccccat tgatgtactg ccaaaaccgc atcaccatgg taatagcgat 240
 gactaatacg tagatgtact gccaaagtagg aaagtcccat aaggtcatgt actgggcata 300
 atgccaggcg ggccatttac cgtcattgac gtcaataggg ggcgtacttg gcatatgata 360
 cacttgatgt actgccaaagt gggcagttta ccgtaaatac tccaccatt gacgtcaatg 420
 gaaagtccct attggcggtta ctatgggaac atacgtcatt attgacgtca atgggcgggg 480
 gtcgttgggc ggtcagccag gcgggccatt taccgtaagt tatgtaacgc ggaactccat 540
 atatgggcta tgaactaatg accccgtaat tgattactat taataacta 589

<210> 226
 <211> 35
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 Primer

<400> 226
 gatccaaatc acccactgca actcctcccc ctgcbg 35

<210> 227
 <211> 26
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic

Primer

<400> 227
gatccatcca attgggcaat caggag 26

<210> 228
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
Primer

<400> 228
gatccggtct ccaattgg 18

<210> 229
<211> 34
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
Primer

<400> 229
gatcctcggg aaagggaac cgaaactgaa gccg 34